Forty-first Biennial Report

OF THE

NORTH CAROLINA STATE BOARD OF HEALTH

July 1, 1964 — June 30, 1966

Forty-first Biennial Report

OF THE

NORTH CAROLINA

STATE BOARD OF HEALTH

July 1, 1964—June 30, 1966

MEMBERS OF THE STATE BOARD OF HEALTH

Appointed by the Governor

LENOX D. BAKER, M.D., President
Appointed 1956
Term expires 1969

A. P. CLINE, SR., D.D.S.
Appointed 1965
Term expires 1969

BEN W. DAWSEY, D.V.M.
Appointed 1959
Term expires 1967

SAMUEL G. KOONCE, Ph.G.
Appointed 1963
Term expires 1967

J. M. LACKEY
Appointed 1965
Term expires 1969

Elected by the Medical Society of the State of North Carolina

JAMES S. RAPER, M.D., Vice-President
Elected 1963
Term expires 1967

OSCAR S. GOODWIN, M.D.
Elected 1960
Term expires 1967

JOSEPH S. HIATT, JR., M.D.
Elected 1965
Term expires 1969

HOWARD PAUL STEIGER, M.D.
Elected 1965
Term expires 1969

EXECUTIVE STAFF AS OF JUNE 30, 1966

JACOB KOOMEN, JR., M.D., M.P.H.,
Secretary and State Health Director
(Term expires June 30, 1967)

W. BURNS JONES, JR., M.D., M.P.H.,
Assistant State Health Director
(Term concurrent with the State Health Director)

J. M. JARRETT, B.S., Director, Sanitary Engineering Division
MARTIN P. HINES, D.V.M., M.P.H., Director, Epidemiology Division
J. W. R. NORTON, M.D., M.P.H., Director, Local Health Division
E. A. PEARSON, JR., D.D.S., M.P.H., Director, Dental Health Division
THEODORE D. SCURLETIS, M.D., Acting Director,
Personal Health Division
LYNN G. MADDRY, M.S.P.H., Ph.D., Director, Laboratory Division
BEN EATON, JR., LL.B., Director, Administrative Services
EDWIN S. PRESTON, M.A., LL.D., Public Relations Officer and
Editor, THE HEALTH BULLETIN

STATE BOARD OF HEALTH

5 members appointed by Governor (G)—4 members elected by Medical Society of the State of North Carolina (S)
(Present term expires June 30th of year given)

BOARD MEMBERS

LENOX D. BAKER, M.D., (G), President, 1969, Durham

JAMES S. RAPER, M.D., (S), Vice-President ..... Asheville
BEN W. DAWSEY, D.V.M., (G), 1967 ..... Gastonia
SAMUEL G. KOONCE, Ph.G., (G), 1967 ..... Chadbourn
OSCAR S. GOODWIN, M.D., (S), 1967 ..... Apex
A. P. CLINE, SR., D.D.S., (G), 1969 ..... Canton
JOSEPH S. HIATT, JR., M.D., (S), 1969 ..... Southern Pines
J. M. LACKEY, (G), 1969 ..... Rt. 2, Hiddenite
HOWARD PAUL STEIGER, M.D., (S), 1969 ..... Charlotte

JACOB KOOMEN, M.D., M.P.H., State Health Director and Secretary-Treasurer, 1967
W. BURNS JONES, JR., M.D., M.P.H., Assistant State Health Director

EPIDEMIOLOGY DIVISION

MARTIN P. HINES, D.V.M., M.P.H.

- Accident Prevention Section (Home-Farm)
- Communicable Disease Control Section
- Immunization Activity Program
- Occupational Health and Radiation Protection Section
- Public Health Statistics Section
- Tuberculosis Control Section
- Venereal Disease Control Section
- Veterinary Public Health Section

LABORATORY DIVISION

LYNN G. MADDRY, M.S.P.H., Ph.D.

- Administrative Section
- Cancer Cytology Section
- Chemistry and Environmental Sciences Section
  - Metabolic Diseases
  - Occupational Health, Air and Water Chemistry
  - Radiochemistry
  - Shellfish
  - Water Bacteriology
- Infectious Diseases Section
  - Mycology and Miscellaneous Bacteriology
  - Parasitology and Enteric Diseases
  - Streptococcus
  - Tuberculosis
  - V. D. Serology
- Laboratory Certification Section
- Research, Education and Program Evaluation Section
- Virology Section
  - Isolation and Identification
  - Serology
  - Immunochemistry

ADMINISTRATIVE SERVICES

BEN EATON, JR., LL.B.

- Budget and Accounting
- Central Files
- Film Library
- Personnel
- Public Health Library
- Public Relations
- Supply and Service

LOCAL HEALTH DIVISION

J. W. R. NORTON, M.D., M.P.H.

- Administrative Section
  - Records and Procedures
  - Training and Residency
  - Migrant Health Project
  - Training Task Force
- Emergency Health Preparedness Section
- Health Education Section
- Public Health Nursing Section
- Home Health Care Section

DENTAL HEALTH DIVISION

E. A. PEARSON, D.D.S., M.P.H.

- Dental Health Education
- Dental Research and Evaluation
- Dental Supply and Service
- Preventive Dentistry

SANITARY ENGINEERING DIVISION

J. M. JARRETT, B.S.

- Engineering Section
  - Air Pollution Control
  - Public Water Supplies
  - Sewage Disposal
  - Radiation Monitoring
- Insect-Rodent Control Section
  - Bedding
  - Entomology
  - Malaria Control
  - Salt Marsh Mosquito Control
- Sanitation Section
  - Environmental
  - Institutional
  - Migrant Health
  - Milk
  - Public Food and Lodging
  - Shellfish

PERSONAL HEALTH DIVISION

THEODORE D. SCURLETIS, M.D., Acting

- Chronic Disease Section
- Crippled Children Section
- Health Insurance Benefits (Medicare)
- Maternal-Child Health Section
- Nursing Home Section
- Nutrition Section
- School Health Coordinating Service—jointly with Department of Public Instruction

Revised September 1966

LOCAL HEALTH DIRECTORS IN NORTH CAROLINA

Department **Health Director** **Address and Telephone Number**

Alamance—Dr. W. L. Norville, Burlington, N. C. 27218—227-7451 (919)
Alleghany-Ashe-Watauga*—Dr. Mary B. H. Michal, P. O. Box 268, Boone, N. C. 28607 267-2711 (704)
Anson—Dr. Phillip H. Creech, P.T., P. O. Box 473, Wadesboro, N. C. 28170—694-2516 (704)
Avery—Newland, N. C., 28657—733-4971 (704)
Beaufort—Dr. W. A. Browne, Washington, N. C. 27889—946-3101/946-3102 (919)
Bertie—Dr. Karl Van Horn, P. O. Box 397, Windsor, N. C. 27983—794-2161 (919)
Bladen—Dr. Caroline Callison, P. O. Box 188, Elizabethtown, N. C. 28337—862-3467 (919)
Brunswick—Dr. J. R. Black, Southport, N. C. 28461—457-2081 (919)
Shallotte, N. C. 754-6611 (919
Buncombe—Dr. H. W. Stevens, P. O. Box 7607, Courthouse, Asheville, N. C. 28807 252-7611, ext. 242 (704)
Dr. Irma H. Smathers, P. O. Box 7607, Courthouse, Asheville, N. C. 28807 252-7611, ext. 242 (704)
Burke—Dr. G. F. Reeves, P. O. Box 945, Morganton, N. C. 28655—437-5152 (704)
Cabarrus—P. O. Box 1149, Concord, N. C. 28025—782-4121 (704)
Caldwell—Dr. William Happer, P. O. Box 777, Lenoir, N. C. 28645—754-4241 (704)
Carteret—Dr. Luther Fulcher, P.T., Beaufort, N. C. 28516—728-4557
***Catawba-Lincoln-Alexander**—Hickory, N. C. 28601—345-3883 (704)
***Cherokee-Clay-Graham**—Murphy, N. C. 28906—837-2311 (704)
Cleveland—Dr. Z. P. Mitchell, P. O. Box 138, Shelby, N. C. 28150—487-8561 (704)
Columbus—Dr. J. R. Black, P. O. Box 786, Whiteville, N. C. 28472—642-4145 (919)
Craven—Dr. W. A. Browne, New Bern, N. C. 28561—637-3121/637-3122 (919)
Cumberland—Dr. M. T. Foster, P. O. Box 470, Fayetteville, N. C. 28302—483-1336 (919)
Currituck—Dr. W. W. Johnston, Currituck, N. C. 27929 —453-2238 (Coinjock) (919)
Dare—Dr. W. W. Johnston, P. O. Box 476, Manteo, N. C. 27954—473-2480 (919)
Davidson—Dr. Dermot Lohr, P. O. Box 522, Lexington, N. C. 27292—246-5952/246-5953 (704)
***Davie-Yadkin**—P. O. Box 457, Mocksville, N. C. 27028—634-2012 (704)
Duplin—Dr. John F. Powers, Kenansville, N. C. 28349—296-2666 (919)
Durham—Dr. O. L. Ader, 300 E. Main Street, Durham, N. C. 27701—682-8176 (919)
Edgecombe—Dr. J. S. Chamblee, Tarboro, N. C. 27886—823-2174/823-2175 (919)
Forsyth—Dr. James A. Finger, P. O. Box 2975, 720 N. Ridge Avenue, Winston-Salem, N. C. 27102—723-8811 (919)
Franklin—Dr. J. B. Wheeless, P.T., P. O. Box 300, Louisburg, N. C. 27549—496-3553 (919)
Gaston—Dr. B. M. Drake, P. O. Box 819, Gastonia, N. C. 28053—864-4331 (704)
Granville—Dr. J. U. Weaver, P. O. Box 1002, Oxford, N. C. 27565—693-7618 (919)
Greene—Dr. Joseph L. Campbell Snow Hill, N. C. 28580—747-3578 (919)
Guilford—Dr. E. H. Ellinwood, 300 E. Northwood Street, Greensboro, N. C. 273-9426 (919)
Dr. Sarah T. Morrow, Asst., 300 E. Northwood Street, Greensboro, N. C. 273-9426 (919)
Halifax—Dr. Robert F. Young, Halifax, N. C. 27839—583-2191 (919)
Harnett—Dr. Melvin F. Eyerman, P. O. Box 36, Lillington, N. C. 27564—893-3425 (919)
Dunn, N. C. 892-2424 (919)
Haywood—Dr. Raymond K. Butler, Waynesville, N. C. 28786—456-3542 (704)
Henderson—Dr. J. D. Lutz, P.T., P. O. Box 150, Hendersonville, N. C. 28739—692-4223 (704)
***Hertford-Gates**—Dr. Quinton E. Cooke, Winton, N. C. 27986—358-3191 (919)
Hoke—Dr. Harry H. McLean, P.T., P. O. Box 638, Raeford, N. C. 28376—875-3717 (919)
Hyde—Dr. W. W. Johnston, P. O. Box 254, Swan Quarter, N. C. 27885—926-3566 (919)
Iredell—P. O. Box 1268, Statesville, N. C. 28677—873-7271 (704)
***Jackson-Macon-Swain**—Sylva, N. C. 28779—586-2913 (704)
Johnston—P. O. Box 711, Smithfield, N. C. 27577—934-4168 (919)
Jones—Dr. John A. Parrott, Trenton, N. C. 28585—448-2701 (919)
Lenoir—Dr. John A. Parrott, 200 Rhodes Avenue, Kinston, N. C. 28501 523-6110/523-6119 (919)
McDowell—Dr. W. F. E. Loftin, Marion, N. C. 28752—695-6471 (704)
Madison—Dr. Margery J. Lord, P.T., Route 5, Box 231, Marshall, N. C. 28753—649-3531 (704)
Martin—Dr. Karl Van Horn, P. O. Box 546, Williamston, N. C. 27892—792-4133/792-4134 (919)
Mecklenburg—Dr. Maurice Kamp, 1200 Blythe Blvd., Charlotte, N. C. 28203—375-8861 (704)
Dr. Eliz. C. Corkey, Asst., 1200 Blythe Blvd., Charlotte, N. C. 28203 (375-8861 (704)

Department	Health Director	Address and Telephone Number

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Montgomery—Dr. G. H. Armstrong, P.T., P. O. Box 275, Troy, N. C. 27371—576-4251 (919)
Moore—Dr. Alfred Siege, Carthage, N. C. 28327—947-2711 (919)
Nash—Dr. J. S. Chamblee, Nashville, N. C. 27856—459-2158 (919)
New Hanover—Dr. C. B. Davis, P. O. Box 1491, Wilmington, N. C. 28402—762-1863 (919)
Northampton—Dr. W. R. Parker, Jackson, N. C. 27845—534-3071 (919)
Onslow—Dr. Eleanor Williams, P. O. Box 246, Jacksonville, N. C. 28541
347-2154/347-2155 (919)
***Orange-Person-Chatham-Lee-Caswell**—Dr. O. David Garvin, Chapel Hill, N. C. 27514
942-4169 (919)
Dr. C. S. Fuller, Asst., Chapel Hill, N. C. 27514—942-4169 (919)
Pamlico—Dr. W. A. Browne, Bayboro, N. C. 28515—745-2506 (919)
***Pasquotank-Perquimans-Camden-Chowan**—Dr. Isa Grant, Elizabeth City, N. C. 27909
335-5429
Pender—Dr. N. C. Wolfe, P.T., Burgaw, N. C. 28425—259-2563 (919)
Pitt—Dr. R. E. Fox, P. O. Box 680, Greenville, N. C. 27834—752-4141/752-4142 (919)
Randolph—Dr. H. C. Whims, P. O. Box 267, Asheboro, N. C. 27203—625-4227 (919)
Richmond—Dr. L. Thomas Morton, Rockingham, N. C. 28379—895-6304 (919)
Robeson—Dr. E. R. Hardin, P. O. Box 1088, Lumberton, N. C. 28358—739-3344 (919)
Rockingham—Dr. C. T. Mangum, P.T., Spray, N. C. 27352—623-6173 (919)
Reidsville, N. C. 27320—349-6533
Rowan—Dr. M. K. Holler, P. O. Box 1487, Salisbury, N. C. 28144—633-0411 (704)
***Rutherford-Polk**—Dr. T. F. Hahn, Rutherfordton, N. C. 28139—287-4931 (704)
Sampson—Dr. Caroline Callison, Clinton, N. C. 28328—592-6177 (919)
Scotland—Dr. L. Thomas Morton, P. O. Box 72, Laurinburg, N. C. 28352—276-1411 (919)
Stanly—Dr. George M. Leiby, P. O. Box 707, Albemarle, N. C. 28001—982-4615 (704)
Stokes—Dr. J. S. Taylor, P.T., Danbury, N. C. 27016—593-7611 (919)
Surry—Dr. Robert Caldwell, P. O. Box 1267, Mount Airy, N. C. 27030—786-4163 (919)
Transylvania—Dr. John R. Folger, P.T., P. O. Box 666, Brevard, N. C. 28712—883-4255 (704)
Tyrrell-Washington*—Dr. Claudius McGowan, P.T., Plymouth, N. C. 27962—793-4416 (919)
Union—Dr. C. A. Bolt, P. O. Box 23, Monroe, N. C. 28110—283-6124 (704)
Vance—Dr. J. U. Weaver, P. O. Box 571, Henderson, N. C. 27536—438-4714 (919)
Wake—Dr. M. B. Bethel, P. O. Box 949, Raleigh, N. C. 27602—833-1655 (919)
Dr. Jane H. Wooten, Asst., P. O. Box 949, Raleigh, N. C. 27602—833-1655 (919)
Warren—Dr. Lloyd H. Harrison, P.T., P. O. Box 157, Warrenton, N. C. 27589—257-3373 (919)
Wayne—Dr. Carl Hammer, P. O. Box 1537, Goldsboro, N. C. 27530—735-4331 (919)
Wilkes—P. O. Box 30, Wilkesboro, N. C. 28697—838-5591 (919)
Wilson—Dr. Joseph Campbell, Wilson, N. C. 27896—237-3141 (919)

CITY DEPARTMENT

Rocky Mount—Dr. J. S. Chamblee, 1616 W. Thomas Street, Rocky Mount, N. C. 27803
442-5181, ext. 270 (919)

REGIONAL OFFICE

Western Regional Office
N. C. State Board of Health
Biltmore Plaza Office Building
Asheville, N. C. 28803
253-8424 (704)

*District Headquarters Corrected December 1966

JACOB KOOMEN, M.D., M.P.H.
STATE HEALTH DIRECTOR
AND SECRETARY-TREASURER
W. BURNS JONES, JR., M.D., M.P.H.
ASSISTANT STATE HEALTH DIRECTOR

NORTH CAROLINA
STATE BOARD OF HEALTH
P. O. BOX 2091
RALEIGH, NORTH CAROLINA 27602

December 15, 1966

The Honorable Dan K. Moore
Governor of North Carolina
The State Capitol
Raleigh, North Carolina

Dear Governor Moore:

Pursuant to the provisions of Chapter 130, Article II, Paragraph 12, General Statutes of North Carolina, I herewith submit to you, and through you to the General Assembly of North Carolina, the Biennial Report of the North Carolina State Board of Health for the fiscal years of July 1, 1964 to June 30, 1966.

Respectfully submitted,

Jacob Koomen

Jacob Koomen, M.D., M.P.H.
State Health Director

JK:dps

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REPORT of the SECRETARY-TREASURER and STATE HEALTH DIRECTOR

Abridged report of the activities of the State Board of Health as recorded in the Minutes

December 3, 1964

A regular meeting of the North Carolina State Board of Health was held Thursday, December 3, 1964, 1:00 p.m. to 4:00 p.m., in the Board Room of the Cooper Memorial Health Building, President Lenox D. Baker, M.D., presiding.

The following members were present:

Dr. Lenox D. Baker, President
Dr. John R. Bender, Vice President
Dr. Ben W. Dawsey
Dr. Glenn L. Hooper
Dr. Oscar S. Goodwin
Mr. D. T. Redfearn
Dr. James S. Raper
Dr. John S. Rhodes

Absent:

Mr. Samuel G. Koonce

The meeting was called to order by President Baker, and the invocation pronounced by Dr. Oscar S. Goodwin.

On motion of Dr. Glenn L. Hooper, seconded by Dr. Ben W. Dawsey, the minutes of the May 6, 1964, Board meeting were approved as circulated by the Secretary.

President Baker asked all members to stand in silent tribute while Dr. J. W. R. Norton, State Health Director, read the following resolution for adoption by the N. C. State Board of Health, in memory of the late Robert D. Higgins, M.D., Director of the Local Health Division, State Board of Health, who passed away October 9, 1964:

RESOLUTION OF APPRECIATION AND RESPECT

Robert Donald Higgins, M.D., M.P.H.

"WHEREAS, the sudden and untimely death of Dr. Robert Donald Higgins, Director of the Local Health Division, has brought profound sorrow to his many friends and associates, and

"WHEREAS, the State Board of Health, wishing to give recognition to his influence and invaluable service and to express its sense of loss in his passing and its grateful appreciation of his great spirit and many virtues, does hereby set forth this formal resolution of respect.

"A native of Ironton, Ohio, Dr. Robert Donald Higgins received his undergraduate education in the Crabbe School in Ashland, Kentucky, and at the University of Kentucky. He received his medical degree from the University of Louisville and his Master of Public Health degree from Harvard University.

"He served with distinction as Assistant Surgeon in World War I.

"For forty-three years he had been active in public health, serving in several important administrative capacities in Kentucky, Florida and North Carolina. His first service was with the State of Kentucky as Director of the Boyd County Health Unit and later he served as Director of the Volusia County Health Unit in Florida.

"On February 1, 1957, he joined the staff of the North Carolina State Board of Health as Assistant Director of the Local Health Division. Since February 1, 1958, he served as Division Director.

"As an able administrator, valued friend, a master organ and piano player, joyous comrade, he will live in the hearts of those who knew him—especially those friends in North Carolina, and in the Southern Branch and national fellowships of the American Public Health Association.

"BE IT THEREFORE RESOLVED, that this expression of respect and appreciation be formally enacted by the State Board of Health, and spread on its official minutes, and that a copy be forwarded to the family of our departed friend to convey, even though inadequately, the sincere sympathy of the members of the State Board, and

"BE IT FURTHER RESOLVED, that copies be also sent to the Editor, the **North Carolina Medical Journal;** the Editor, **Journal of the American Medical Association;** the Editor, the **Journal of the American Public Health Association;** the Editor, **The Bulletin,** American Association of Public Health Physicians; the Editor, **Newsletter** of the American College of Preventive Medicine; the Secretary, the Medical Society of the State of North Carolina; the Secretary, the North Carolina Public Health Association, and to the Director, the Department of Archives and History.

"This the third day of December, 1964."

In relation to a request from the Orange-Durham County Medical Society for the Board's views regarding requirement of tetanus immunization for initial issuance of a driver's license and subsequent renewals, Dr. Jacob Koomen, Jr., Assistant State Health Director, presented a discussion of North Carolina's present tetanus experience. Dr. Goodwin moved, and Dr. Rhodes seconded, a motion that the Board approve such a requirement. Motion was passed unanimously. This action is to be reported to the Orange-Durham County Medical Society so that it may, in turn, report favorable action to the State Medical Society. If the State Medical Society approves, the Attorney General's Office will be asked to draw up a bill for presentation to the coming legislative session.

Mr. Samuel J. Hawkins, Director of the Emergency Health Preparedness program gave a summary of the emergency preparedness program, which was created to coordinate all services that might be needed in times of disaster and was delegated to the State Board of Health through the Governor's Office. Most of these activities are in natural disasters, hurricanes, etc. The most tangible items of civil defense are the 48 to 200 bed emergency hospitals, and he showed a map of these hospitals. The next major step is to develop some type of training for use of these hospitals. In regard to the medical self-help program, North Carolina has not done as well and is actually lagging in the number of people trained.

Governor Terry Sanford made a brief visit to the meeting of the State Board, and in welcoming him, Dr. Baker said, "It is a privilege to have you come to attend the last meeting which we will hold while you are serving as

Governor of the State of North Carolina. I know of no man who has been Governor of the State of North Carolina who has done a better job. May I say you are one of the finest governors, and please tell Mrs. Sanford we think she has been a wonderful First Lady. We recognize that you have an incurable disease—that of unselfish dedication to service of your fellowman. We have no plans for developing a vaccine against this relatively rare disease."

Governor Sanford said: "Dr. Baker, I am certainly glad to have a chance to come and meet with this Board. I have tried to keep in touch and to be of assistance every time you and Dr. Norton called and I have enjoyed working with the staff members in a number of programs. I have not been attending board meetings because there are some 157 State boards and commissions. But I have watched with more than passing interest the many things that have been done.

"As you may know, Dr. Norton and I come from the same sandhill section of North Carolina. In fact, we both come from along about the place where Drowning Creek turns into Lumber River. I have certainly known him and he has known my family for many, many years, I suppose since he was a young boy. And, so again, I have had a special interest in what was going on here and special appreciation for what was being done.

"I do not like this business of coming to the end of an administration. I do not like this business of going around and saying that the time has come to say goodbye. I can't quite figure out what the proper approach is. In any event, I did not want to get out of office without expressing my appreciation and thanks.

"I think a lot of progress has been made. It has been made in many things that deal with the well-being of the people. Almost everything your Board does relates to people and their position in life and their capabilities. I think we could have a little better philosophy of the State if we concerned ourselves with people and did what we could to put them in a little better position to fulfill their capabilities.

"So this agency is typical of what all agencies should be concerning themselves with and that is how can we better develop the human resources of the State. With that, I again say that I am very grateful for the association I have had with all of you."

Dr. Baker recognized Mr. Thomas W. Lambeth, Administrative Assistant, who accompanied the Governor.

Dr. Martin P. Hines, Director of the Epidemiology Division, discussed the major changes in the direction of the new tuberculosis control program of the State Board of Health, including the discontinuance of the mass Xray mobile survey program as carried on in the past. He stated that mass Xray surveys would be discontinued after December 31, 1964. On behalf of the Board, President Baker welcomed Dr. Hines as a new division director.

Dr. J. W. R. Norton, State Health Director, reported on the meeting in Chicago of the National Conference on Medical Aspects of Driver Safety and Driver Licensing sponsored by the American Medical Association and the Public Health Service. After discussion, the Board instructed the staff to study ways

in which legislation may be needed to promote traffic safety and to give full support to such constructive legislation as may be sponsored by the Department of Motor Vehicles or other agencies.

Dr. Edwin S. Preston, Public Relations Officer, gave a brief review of the legislative proposals made by the State Board of Health to the 1963 General Assembly. He indicated that all five of the proposals made at that time were enacted. A recent request from Governor-Elect Dan K. Moore, for legislation which was being planned for presentation to the 1965 General Assembly was circulated to division directors at Dr. Norton's request. No definite proposals for specific health legislation in the forthcoming General Assembly were thought to be needed at this time.

Dr. Preston also reviewed briefly the centralized plan for legislative information and service which was in effect at Dr. Norton's request in the Public Relations Office during the 1963 Session of the General Assembly. A mimeographed sheet presenting this plan was circulated and is filed with the minutes as being the plan to be used during the coming session. This legislative information and service will be available to Board members, State staff and local health directors. The report was received as information.

Dr. Koomen reported on and discussed the advisability of establishing a much needed regional public health laboratory facility in the western part of the State in Asheville. North Carolina is now served by the State Laboratory in Raleigh. It was noted that it takes several days for specimens to reach Raleigh from, and reports to be returned to, the far western end of the State. In the discussion, it was noted that one reason for considering the establishment of a regional laboratory was that the erection of a State office building in Asheville has been proposed. It was pointed out that several other states have regional public health laboratories. On motion of Dr. Raper, seconded by Dr. Hooper, Dr. Norton was instructed to study further the feasibility of establishing this regional laboratory in Asheville and give a report at the next Board meeting. Motion carried.

President Baker recognized Mr. Ben Eaton, Jr., Director of Administrative Services, and cordially welcomed him back on the staff of the State Board of Health. Mr. Eaton had been granted a leave of absence from the State to accept a position with the Public Administration Service in Afganistan in 1959. He later served in Peru with North Carolina State College, and has returned to the Board after this five-year absence.

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, presented a petition for a proposed extension of the boundary lines of the Royal Oaks Sanitary District in Cabarrus County. He stated that all documents and transactions had been carefully examined by his office and were, in his opinion, in order and in compliance with the law, and he recommended that the State Board of Health authorize this request for extension of the sanitary district. On motion of Mr. Redfearn, seconded by Dr. Hooper, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH EXTENDING THE BOUNDARY LINES OF THE ROYAL OAKS SANITARY DISTRICT IN CABARRUS COUNTY, NORTH CAROLINA, was carried.

Mr. Jarrett also presented a request for the extension of the boundary lines of the Rural Hall Sanitary District. He stated that the documents, as well as the various transactions relative to this matter, had been examined by his office and were in order, and he recommended favorable action by the Board to annex the proposed territory. On motion of Dr. Hooper, seconded by Dr. Goodwin, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH EXTENDING THE BOUNDARY LINES OF THE RURAL HALL SANITARY DISTRICT IN FORSYTH COUNTY, NORTH CAROLINA, was passed.

Also, Mr. Jarrett presented a request for the dissolution of the Dare Beaches Sanitary District in Dare County. He stated that the Dare Beaches Sanitary District was created in 1948; the Town of Nags Head is now incorporated and the Sanitary District has, therefore, served its purpose. Therefore, it is requested that the State Board consider favorably the dissolution of the Dare Beaches Sanitary District as requested in the petition. He stated that all procedures were in order, and he recommended that the dissolution request be authorized by the Board. It was moved by Dr. Goodwin, seconded by Dr. Rhodes, that the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH DISSOLVING THE DARE BEACHES SANITARY DISTRICT IN DARE COUNTY, NORTH CAROLINA, be authorized. Motion carried.

Then, Mr. Jarrett presented a suggestion for revision in Form No. 451—Inspection Form For Restaurants and Foodhandling Establishments. He recommended the deletion of the words, "facilities adequate for each sex and race" in Item 6 in the Form, and to insert in place of the above "facilities adequate to meet Labor Department rules." He explained that the Labor rules would make use of this same terminology in its new regulations and Mr. Jarrett recommended that this change be made in our Form No. 451. On motion of Dr. Dawsey, seconded by Dr. Raper, the recommended change was approved.

Mr. Jarrett also reported on a proposed revision of rules and regulations governing the sanitation of meat markets, abattoirs, frozen food locker plants, and poultry processing plants. On motion of Dr. Hooper, seconded by Dr. Dawsey, the REVISED RULES AND REGULATIONS GOVERNING THE SANITATION OF MEAT MARKETS, ABATTOIRS, FROZEN FOOD LOCKER PLANTS, AND POULTRY PROCESSING PLANTS, was approved. These revised rules and regulations to become effective July 1, 1965.

At the conclusion of Mr. Jarrett's presentation of items, Dr. Baker commented on the long and efficient service which Mr. Jarrett has rendered to public health in North Carolina and to this Board. He commended Mr. Jarrett for the excellent manner and form in which the Sanitary Engineering recommendations have been presented to the Board throughout Mr. Jarrett's long years of service. Dr. Hooper moved and Dr. Raper seconded this sentiment, and by acclamation the Board gave its unanimous approval of this expression of appreciation and gratitude.

Mr. W. Gordon Poole, Chief of the Nursing Home Section, presented several items for consideration and approval by the Board relative to appointments of members to the Nursing Home Advisory Council to the State Board of Health:

(1) Miss Ethel Harrison, R.N., Chapel Hill, to succeed Mrs. Nan Cummings. Miss Harrison is Assistant Director of Nursing Service at N. C. Memorial Hospital; a member of the Committee on Nursing Care of the Chronically Ill and Aged, and currently is Co-Chairman of this Committee. On motion of Dr. Raper, seconded by Dr. Hooper, the recommendation of Miss Harrison's appointment was approved.

(2) Mr. Lloyd Gilbert's nomination by the N. C. Hospital Association to succeed Mr. Joseph Barnes was recommended. Mr. Gilbert is Administrator of the Johnston Memorial Hospital, Smithfield. On motion of Dr. Goodwin, seconded by Dr. Rhodes, Mr. Lloyd Gilbert was approved as a member of the Nursing Home Advisory Council of the State Board of Health.

(3) Dr. D. A. McLaurin, Garner, was re-nominated by the Medical Society of the State of North Carolina to succeed himself. Dr. McLaurin is a member of the Chronic Disease Committee of the Medical Society. On motion of Dr. Raper, seconded by Dr. Hooper, Dr. McLaurin's appointment as a member of the Nursing Home Advisory Council to the State Board of Health, was approved.

The above nominees are for a three-year term to expire in 1967.

Mr. Poole reported to the Board that Mr. Everett C. Carnes, Attorney to the Nursing Home Advisory Council—term expiring in 1965, had resigned because of too many conflicts and professional duties. It was moved by Dr. Hooper, seconded by Dr. Goodwin, that this resignation be accepted and that this position remain unfilled for the present. It was so ordered. It was suggested by the Board that a letter of thanks be written to Mr. Carnes for his services rendered during his term of service.

At the request of the Nursing Home Advisory Council, Mr. Poole recommended to the Board that a representative of church and fraternal homes be included on the Council. On motion of Dr. Goodwin, seconded by Dr. Dawsey, the request to include a representative from church and fraternal homes was carried.

Also, Mr. Poole reported that it was recommended by the Nursing Home Council that it be enlarged in membership by including a representative of Foundations and Endowments. After discussion, it was moved that the Duke Endowment submit a nominee and then a mail vote be taken of the Board members so that the one appointed can begin his term immediately. Motion made by Dr. Goodwin, seconded by Dr. Rhodes, and carried.

Mr. Poole reported that Dr. Ellen Winston who was an ex-officio member of the Nursing Home Advisory Council had left the State. Therefore, it was recommended that the "Commissioner of the State Board of Public Welfare" be substituted as an ex-officio member. It was moved by Dr. Rhodes, seconded by Dr. Goodwin, that this replacement be accepted, and that a letter of appreciation of Dr. Winston's services be written to her. Motion carried.

Mr. George M. Stephens, Jr., Governor Terry Sanford's Special Assistant, reported on a study that was done this summer which Governor Sanford considers to be of great long-range interest to the State. He distributed copies of

this report "Strategy for Development" and three articles. He stated that several seminars have been held on human resources, natural resources and economic development. He indicated that the study recommended:

(1) That the long-range planning division already authorized in the Department of Administration be activated.

(2) That rather than trying to have all of the planning for the State Government operations going on in that unit, that every effort be made to encourage the agencies of State Government to do their own advance planning and thinking so that they can work together and with the Governor even more effectively on programs for the future.

(3) That the State use the most modern systems that are available for the collection and analysis of information, including computers.

(4) That the State establish a rational program for working with the regional planning development associations and groups.

Governor Sanford has endorsed these recommendations and has appointed a committee of leading citizens and State agency heads to help him get them carried out. This committee is at the point of recommending initial staff, at least a director who could head the planning division. Money is being arranged for and also arrangements are being made for transition into the next administration. Mr. Stephens stated that the plan has the endorsement of Governor-Elect Dan K. Moore.

President Baker, on behalf of the Board, commended Dr. Edwin S. Preston, Public Relations Officer, on the excellent manner in which he has presented publicity, news coverage, etc., of the State Board of Health, the staff and the public health program. He referred particularly to the coverage in The Health Bulletin of the transfer of licensing and enforcement authority from the Atomic Energy Commission to the State of North Carolina to be administered by the State Board of Health.

Dr. W. Burns Jones, Director of the Local Health Division, who is on loan for three months to assist with the North Carolina Fund and Economic Opportunity Program, was present and briefly reviewed as information the purpose and programs which have been developed in these organizations thus far. On behalf of the Board, Dr. Baker welcomed Dr. Jones as a new Division Director.

Dr. D. Frank Milam, Chief of the Cancer-Heart-Chronic Disease Section, reported briefly on action taken on request of the Bertie County Hospital for approval under the State Cancer Program. The Hospital's request was denied due to failure of this hospital to comply with regulations requiring that Xray equipment and radium for the treatment of cancer be provided. On request of the hospital superintendent, the matter was referred to the Chronic Disease Committee of the Medical Society of the State of North Carolina which sets up regulations for the cancer programs. At the September meeting of this committee, the action by the State Board was upheld. Dr. Milam's report was accepted as information and no action was needed.

Dr. Hooper called attention to the Christmas decorations of the Board Room and thanked Mrs. Edwards, Mrs. Tetterton and Mrs. Mouser for this thoughtful courtesy.

Mr. Redfearn stated that he had been approached by county managers relative to the possible greater use of administrative assistants in the local health departments. The matter was discussed but no action taken.

Mr. Redfearn also commented on the continuing need for avoiding undue work by local health departments in preparation of complicated reports. Copies of the rules under which our Permanent Records Committee operates to assure appropriate handling of this problem were distributed to Board Members.

Mr. Ben Eaton, Jr., Director of Administrative Services, spoke briefly concerning the biennial budget requests of the State Board of Health for 1965-1967, and of the recent Federal allotments for the fiscal year, 1964-1965.

It was pointed out that the Department has not as yet received any information as to action taken by the Advisory Budget Commission on the "B" Budget requests, which are $1,541,818 for 1965-1966 and $1,626,081 for 1966-1967, or a total of $3,167,899. Aid to counties through the Local Health Division is the number one priority in this request. It was emphasized that the counties and Local Health Departments would receive over 84% of the "B" Budget request if the "B" Budget receives favorable action by the Legislature. Members of the Board were urged to give their support through contacts with Legislative representatives to the Department's budget proposals.

The Board was advised of the Federal Grant Funds recently made available to the Department for the year 1964-1965. The overall allocation resulted in an increase of $248,299 over the year 1963-1964. Virtually all of this increase came from the large increases in the grants of Maternal and Child Health and Crippled Children, whereas substantial reductions occurred in the grants to General Health, Heart Disease, Cancer, Chronic Disease and Venereal Disease. In General Health alone there was a reduction of $150,000 over the preceding year. Thus, there is a significant shift in Federal grant policy from formula grants to grants for special projects or programs.

Dr. Glenn Hooper reported on the advisability of changing the present name of the "Oral Hygiene Division" of the North Carolina State Board of Health. He stated that Dr. E. A. Pearson, Jr., the Director, had been concerned for some time about such a change because a large number of citizens in North Carolina do not understand the true meaning of the words "Oral Hygiene". Quite often the lay person does not associate the words "oral hygiene" with "dental health." Another confusion about the name has been experienced in communications both by telephone and letter. For these reasons Dr. Pearson had recommended to the Board for their consideration a change of the name of this division from the name "Oral Hygiene Division", to "Dental Health Division". On motion of Dr. Hooper, seconded by Dr. Raper, the Board unanimously approved the change of name as requested to "DENTAL HEALTH DIVISION".

Dr. Baker asked for a clarification of the circumstances surrounding new funds which are available in the field of mental retardation. It was brought to

Dr. Baker's attention that the funds available in this area are a part of the regular formula funds through Maternal-Child Health and Crippled Children. Recent Federal legislation has increased these grants with the provision that at least one-third of the additional money must be spent on children who have mental retardation as a significant part of their problems.

On motion duly made and seconded, the Board adjourned about 4:00 p.m.

May 5, 1965

The annual meeting of the North Carolina State Board of Health was held during the annual meeting of the Medical Society of the State of North Carolina in the Charlotte Merchandise Mart, Charlotte, North Carolina, Wednesday, May 5, 1965, 8:00 a.m. to 9:15 a.m. Dr. Lenox D. Baker, President of the Board, presided.

Attending: Lenox D. Baker, M.D.
Ben W. Dawsey, D.V.M.
Glenn L. Hooper, D.D.S.
Oscar S. Goodwin, M.D.
D. T. Redfearn, B.S.
James S. Raper, M.D.
Samuel G. Koonce, Ph.G.
John S. Rhodes, M.D.

Absent: John R. Bender, M.D.

Also present was Dr. Howard Paul Steiger of Charlotte, newly elected by the Medical Society of the State of North Carolina to the Board and who will take his Oath of Office at the next meeting.

In addition to the Board members, staff members present included: Dr. J. W. R. Norton; Dr. Jacob Koomen, Jr.; Dr. Martin P. Hines; Dr. Edwin S. Preston; Mr. John Andrews; Mr. Gordon Poole, and Dr. George Leiby of Johnston County. Mr. John H. Ketner, Co-Director of the North Carolina Ambulance Service Study, was also present.

Dr. Baker gave the invocation. The minutes of the last meeting were approved as circulated.

Dr. Jacob Koomen, Jr., Assistant State Health Director, presented the proposal of a branch laboratory in the western part of the State. He said that currently 17% of the specimens now being processed in the State Laboratory originated in western North Carolina. He indicated that it would take approximately $300,000 to provide an adequate building with equipment and staff for the first year. Thereafter, the yearly cost would not include the capital expenditures. He stated that there were a number of factors which would need to have further study before it could be determined whether it was both necessary and feasible to have such a branch laboratory. The type of specimens, whether or not they deteriorate because of time in shipping, the availability or strengthening of county and private laboratories were amongst the factors which Dr. Koomen indicated should be considered before any wise decision could be made.

Dr. Martin P. Hines, Director of the Epidemiology Division, presented the two-year study which has resulted in proposed legislation (not yet introduced) concerning ambulance service regulations. Mr. John H. Ketner, Co-Director of the North Carolina Ambulance Service Study, was present and participated in the discussion. Dr. Baker raised a number of questions concerning the provisions of the bill which seemed to give the County Commissioners the responsibility for private ambulance business and might result in a confusing lack of uniformity in services. It was moved by Dr. Hooper, seconded by Mr. Redfearn and passed, that the State Board of Health supports the principles set forth in the bill and will continue in cooperation with the morticians in following through with their efforts to assure the availability and accessibility of ambulance services throughout the State.

Mr. John Andrews of the Sanitary Engineering Division, recommended revisions to the Rules and Regulations Governing the Sanitation of Private Hospitals, Nursing Homes, Rest Homes, Sanitariums, Sanatoriums, Educational and other institutions. On motion of Dr. Dawsey, seconded by Dr. Hooper, these revisions were approved. (Copies filed in Minute Book)

Mr. Andrews presented two resolutions for the extension of the boundary lines of the YANCEYVILLE SANITARY DISTRICT, CASWELL COUNTY. He stated that the annexation of the proposed territory, documents, as well as the various transactions relative to this extension, had been examined by the Sanitary Engineering Division and were in order, and he recommended favorable action by the Board. On motion of Dr. Hooper, seconded by Dr. Goodwin, the two resolutions for the extension of boundary lines of the Yanceyville Sanitary District in Caswell County, North Carolina, were passed. (Copies filed in Minute Book)

A proposal to allow recreational activities on GRAHAM CITY RESERVOIR was also presented by Mr. Andrews. On motion of Dr. Rhodes, seconded by Mr. Redfearn, the resolution authorizing the City of Graham to permit controlled fishing and other controlled recreational activities on the City's Reservoir, was approved. (Copy filed in Minute Book)

Dr. Hooper moved that the body endorse the proposals and program of Governor Moore with regard to highway safety. Dr. Hooper's motion was seconded by Dr. Rhodes, and carried.

Dr. Baker introduced Howard Paul Steiger, M.D., Charlotte Dermatologist, one of the two newly elected members to the State Board of Health. Joseph Spurgeon Hiatt, Jr., M.D., Internist of Southern Pines, the other newly elected Board member by the Medical Society of the State of North Carolina, was not present at the meeting.

The Board expressed its regret in losing Dr. Rhodes and Dr. Bender from the Board's membership after the next Board meeting, and expressed thanks to them for their services.

The Board also expressed its deep regret at the passing of Dr. D. Frank Milam on April 6, 1965, and asked that a resolution of respect and appreciation be prepared by the staff for presentation at the next Board meeting.

The Board adjourned to the Conjoint meeting where Dr. Wayne Benton for the Medical Society, and Dr. Lenox D. Baker, for the State Board, presided.

Dr. William L. Wilson presented the Conjoint Report entitled, "Can 'Medicine' Overtake Technological Civilization?"

August 26, 1965

The regular quarterly meeting of the North Carolina State Board of Health was held Thursday, August 26, 1965. At 11:00 a.m. the Board met for the oath-taking ceremony of new Board members in the Hall of the House of the Capitol Building. The invocation was given by The Rev. T. Marvin Vick, Jr., D.D., of the Edenton Street Methodist Church. Governor Dan K. Moore welcomed the many friends, including members of the staff of the Board, for the ceremony. Chief Justice Emery B. Denny of the Supreme Court of North Carolina, administered the Oaths of Office to the following for four-year terms on the Board of Health:

Governor Dan K. Moore's Appointees

Lenox D. Baker, M.D., (G), 1969—Durham (Re-appointed)
A. P. Cline, Sr., D.D.S., (G), 1969—Canton
J. M. Lackey, (G), 1969—Route 2, Hiddenite

Elected by the Medical Society of the State of North Carolina

Joseph S. Hiatt, Jr., M.D., (S), 1969—Southern Pines
Howard Paul Steiger, M.D., (S), 1969—Charlotte

The benediction was given by The Rev. Vick.

Following the oath-taking ceremony in the Capitol Building, the members of the Board proceeded to the Cooper Memorial Building for a regular executive session in the Board Room.

Attending: Dr. Lenox D. Baker; Dr. James S. Raper; Dr. Ben W. Dawsey; Mr. Samuel G. Koonce; Dr. Oscar S. Goodwin; Dr. A. P. Cline, Sr.; Dr. Joseph S. Hiatt, Jr.; Mr. J. M. Lackey, and Dr. Howard P. Steiger.

President Baker presided. The meeting was called to order and the invocation pronounced by Dr. Baker, after which the new members were introduced and greeted.

On motion duly made and seconded, the Minutes of the Board Meeting held on May 5, 1965, were approved as circulated by the Secretary.

President Baker announced that it was time for the election of officers and a new Executive Committee of the Board for two-year terms ending in 1967 consisting of a President, Vice-President, and two additional Board Members.

Dr. Ben W. Dawsey moved, seconded by Dr. A. P. Cline, Sr., that Dr. Lenox D. Baker be re-elected as President. Motion unanimously passed.

Dr. Oscar S. Goodwin moved that Dr. James S. Raper be nominated to serve as Vice-President of the Board. Motion seconded by Dr. Dawsey, and carried.

It was moved that Dr. Dawsey and Mr. Samuel G. Koonce be nominated to serve on the Executive Committee of the Board. Motion seconded, and unanimously carried.

Dr. Edwin S. Preston, Public Relations Officer, presented a "Resolution of Appreciation and Respect" for Dr. D. Frank Milam, who passed away April 6, 1965. Dr. Milam was a member of the Board's staff in the Personal Health Division. Dr. Goodwin moved that the Resolution be adopted by the Board and made a part of the records of the State Board of Health. Motion seconded by Dr. Dawsey, and carried. Copy of the Resolution follows:

RESOLUTION OF APPRECIATION AND RESPECT

Dr. Daniel Franklin Milam

1894-1965

"The death of Dr. Daniel Frank Milam on April 6, 1965, ended a career in public health which covered more than forty years and three continents.

"Dr. Milam was born in Leesburg, Florida, on May 12, 1894. After primary education in Kentucky and Florida, Dr. Milam attended Stetson and Vanderbilt Universities.

"It was only after his service as an Ensign in the Navy during World War I that Dr. Milam entered the field of medicine at the University of Chicago Medical School, receiving his M.D. degree in 1923. He received the Master of Public Health degree from Johns Hopkins University. He served his internship in 1922-'24 and then went with the Rockefeller Foundation.

"Service with the Foundation took Dr. Milam to Poland, Austria, Canada, Czechoslovakia, Lebanon, the Virgin Islands, the Philippine Islands, and many parts of the United States. Included in his tenure with the Foundation was service in North Carolina, assigned as a Consultant to the State Board of Health. He first came here in 1932 when he was instrumental in locating the first cases of Rocky Mountain Spotted Fever in this State. With the assistance of Dr. Joseph C. Knox, now a Wilmington Pediatrician, he organized the Communicable Disease Program which later became the Division of Epidemiology. For six years, Dr. Milam made a study of the nutritional status of the Bynum (Chatham County) and certain other rural communities in North Carolina. These studies were conducted through the Research Departments of Duke University of North Carolina.

"During this twenty-five years of service, Dr. Milam pioneered in studies on human nutrition and related subjects. Mrs. Milam has many momentos of their years in foreign service in their home in Chapel Hill.

"After his retirement from the Rockefeller Foundation, he served as National Director of the Planned Parenthood Federation for two years (1948-'50). In 1950, he became Medical Director of the New York Heart Association, a position he held until 1959.

"He then returned to North Carolina as Chief of the Heart, Cancer and Chronic Disease Sections, where he served so ably until his death. During his administration of these responsibilities, the areas have progressed in an outstanding way in this State, matching progress in any other state in the Nation.

"Dr. Milam was author of a score of articles in medical journals over the years of his service in public health. He was a Fellow of the American Medical Association, of the American Public Health Association, and of the New York Academy of Medicine. He was licensed to practice medicine in Illinois, Florida, New York, and North Carolina.

"Dr. and Mrs. Milam made their home in the Morgan Creek area of Chapel Hill. Dr. Milam married Mary Louise Wilson in 1924. They have four children—a daughter, Mrs. R. P. Creed, New York, N. Y.; and three sons, all of them medical doctors, Dr. John H. Milam, Winchester, Va.; Dr. D. F. Milam, Jr., Bellevue, Washington; and Dr. R. W. Milam, McAllen, Texas. Dr. Milam is also survived by two brothers, George W. and E. B. Milam, both of Jacksonville, Florida.

"Because few men have had such long services in public health and few have served in so many areas of public health; because Dr. Milam was a versatile and dedicated public health physician and yet still had time to be a patient and kind person; because no one could have regarded him as anything but the fine gentleman he was; and because of the personal affection he generated and deserved and his devotion as a public health worker, he will be missed.

"THEREFORE, BE IT RESOLVED, that this expression of respect and appreciation be formally enacted by the State Board of Health and spread upon its official Minutes, and that a copy be forwarded to the family of our departed friend to convey, though inadequately, the heartfelt sympathy of the members of the State Board, and

"BE IT FURTHER RESOLVED, that copies be also sent to the Editor, North Carolina Medical Journal; the Editor, Journal of the American Medical Association; the Editor, Journal of the American Public Health Association; the Secretary, Medical Society of the State of North Carolina; the Secretary, North Carolina Public Health Association; to the executives of the Rockefeller Foundation; and of the other organizations with which he was associated.

"This twenty-sixth day of August, 1965."

Dr. Jacob Koomen, Jr., Assistant State Health Director, discussed the present status of the health related aspects of the Appalachian Regional Commission. Under the Act, multi-county health facilities may be built and staffed. Soon a twenty-four member committee will be appointed, half by Governors of States involved, to study the health needs of Appalachia to determine future course of action in establishing the multi-county health facilities.

Next, Dr. Koomen presented items relating to Title XVIII of the recently amended Social Security Act—Public Law 89-97. Each Governor is to designate the State Agency to work with the Social Security Administration in the implementation of Title XVIII. The responsibilities of the State Agency includes, as pointed out in the Association of State and Territorial Health Officers Newsletter, June 25, 1965:

"1. Certification that providers (hospital, nursing homes, and home health programs) meet the established standards;

"2. Providing consultation and assistance in establishing **utilization review** staff committees in each institution to review both the quality of care and the length of stay of patients; and

"3. Providing consultation which will assist hospitals, nursing homes, and home health programs to participate in the program."

It was brought out that the State Board of Health already carries out some of these functions and that its present role relates closely to others. Data and information available to the State has been sent to the Governor's Office. Dr. Norton has also talked with members of the Governor's staff and the President of the Board, Dr. Lenox D. Baker, has been in communication with Governor Dan K. Moore.

Mr. J. M. Jarrett, Director, Sanitary Engineering Division, presented for consideration by the Board rules and regulations relating to the sanitation of shellfish and crustacea. The 1965 General Assembly passed an Act clarifying the authority of the State Board of Health to regulate the sanitation of harvesting, processing and handling of shellfish and crustacea. The Bill directed the State Board of Health to prepare and enforce regulations. The regulations presented were the same as in effect prior to July 1 under the authority of the Commercial Fisheries Division of the State Department of Conservation and Development, the only change being made in the previous regulations were editorial changes to comply with the amended law. He recommended the adoption of these regulations by the Board. Dr. Dawsey moved the adoption of the proposed RULES AND REGULATIONS RELATIVE TO THE SANITATION OF SHELLFISH AND CRUSTACEA, as amended. Motion seconded by Dr. Goodwin, and carried. (Copy attached)

Also, Mr. Jarrett presented and discussed minor changes and amendments to update the RULES AND REGULATIONS PROVIDING FOR THE PROTECTION OF PUBLIC WATER SUPPLIES. After consideration by the Board, Mr. Koonce moved adoption of the proposed amendments. Motion seconded by Dr. Cline, and carried. (Copy attached)

Dr. Theodore D. Scurletis, Chief of the Maternal and Child Health Section, Personal Health Division, gave an interim report on the Laboratory for the screening of metabolic diseases. He stated that through the combined efforts of the Laboratory Division and the Maternal and Child Health Section, a laboratory unit was established for the screening of inborn errors of metabolism. To-date the program has progressed through a development stage during which the best time to apply this type of screening procedure on the newborn was established. Screening for all newborns for PKU will begin November 1 and this is being announced at present. An advisory committee of biochemists and pediatricians is guiding the development of this program and it is hoped that this will lead to screening for detection of other metabolic errors as soon as feasible. The present cost of this test is about thirty cents (.30¢) which is about one-third the cost of any other test mechanism. The procedure involves use of the autoanalyzer adapter for protein analysis by Dr. Summers and Dr. Hill of the University of North Carolina.

Mr. Ben Eaton, Jr., Director of Administrative Services, presented a brief review of Personnel and Budget for the fiscal years 1965-'67.

It was pointed out that the total State Appropriations for 1965-'67 is $9,664,728, or an increase of $1,331,271 over the prior biennium.

The combined total of State and Federal funds for the ensuing fiscal year 1965-'66 is $8,426,860, or an overall increase of $737,290. We do not yet have the figures from some counties and cannot now indicate the Local appropriation, which for fiscal year 1964-'65 was $8,026,994.

The major State increases for the current fiscal year over the prior year 1964-'65 are found in the ten percent general salary increase which amounts to $168,231; for new personnel in the Laboratory $40,764; and for Hospital Care

(Cancer, Crippled Children, Maternal and Child Health), $128,951. An increase of $32,424 was appropriated for Payments to Counties for the first year and $64,848 for the second year.

In respect to personnel, thirteen additional employees were provided, nine of which are for the Laboratory, three for Food and Lodging Sanitation, and one for the Water Supply unit of the Sanitary Engineering Division. Within the Laboratory, a new PKU Unit for the detection of errors of metabolism in infants has been established which will utilize three of the employees provided for this Division.

Mr. Eaton spoke of our additional budget requests for the biennium submitted to the Joint Appropriation Committee which totaled $2,801,701. This is commonly known as "B" Budget and was primarily for additional employees in nine programs, none of which was granted by the Legislature with the exception of $50,000 for Salt Marsh Mosquito Control. Priority Number One was a request for $1,306,320 for the biennium for assistance to local health departments to provide employment for much needed public health nurses and sanitarians. This item of the "B" Budget Request after unfavorable action by the Committee was revived during Legislative hearings, passed the Senate, but was defeated in the House. Mr. Eaton stated that strong and effective leadership was given to this request by local health directors, Dr. Norton, Dr. Koomen, staff members, members of the Board, and others, and that a good foundation was laid for further consideration by the Advisory Budget Commission and the next General Assembly.

Of particular concern is the tremendous decrease of Federal funds in the General Health Grant. This amounted to $143,700 during the past two years. The trend was first toward categorical grants with substantial decreases later in this area and now a shift to special project grants. As a result, important flexibility in our budget processes has been impaired and it presents serious problems for the future in our budgeting procedures.

It was also noted that grants by the Children's Bureau were more than twice the grants for the seven programs of Public Health Service which was $2,541,160 as against $1,153,174. There was an increase of $229,727 for the current year in the two programs of the Children's Bureau, which are Crippled Children and Maternal and Child Health; whereas, in the Public Health Service programs, there was an overall increase of only $10,800, reflecting also the very large decrease in the General Health Grant, heretofore indicated.

President Baker announced that it had been recommended by the Nursing Home Section of the Board of Health that two new members be appointed by the Board to serve a 3-year term on the Nursing Home Advisory Council. For these appointments, Mrs. Edith Chance, Fayetteville, representing the North Carolina Association of Nursing Homes, and Jere Roe, D.D.S., member of the North Carolina Dental Society, had been considered.

It was moved by Mr. Lackey that Mrs. Edith Chance be appointed to the Nursing Home Advisory Council by the Board of Health. The motion was seconded by Dr. Dawsey, and carried. Dr. Cline moved that Dr. Jere Roe be appointed to the Nursing Home Advisory Council by the Board of Health. The motion was seconded by Dr. Goodwin, and carried.

Dr. Norton reported that Dr. John H. Hamilton was in the hospital for a thorough check-up. It was moved that Secretary Norton write a note from the Board expressing their best wishes for a speedy and complete recovery.

President Baker discussed informally Medicare which will be placed in a State Agency designated by Governor Dan K. Moore. Dr. Norton stated that he had indicated to the Governor that if placed in the Board of Health, we stood ready and willing and would welcome the responsibility if it is the wish of the Governor. Dr. Goodwin moved that the Executive Committee of the Board draw up a statement to the Governor. The motion was seconded by Dr. Steiger, and carried.

President Baker asked that the Executive Committee meet immediately for a short conference following adjournment. At this meeting, the following letter was drawn up, approved, and sent to Governor Moore:

"Dear Governor Moore:

The State Board of Health in regular quarterly session, August 26, 1965, approved unanimously the following statement, drafted by its Executive Committee, on Title XVIII, Public Law 89-97 ("Medicare").

'The official Board and Staff of the State Board of Health stand willing, ready, able and, if the Governor wishes, would welcome designation of the State Board of Health by the Governor as the Agency responsible for activities in health protection and promotion, assuring quality preventive and treatment services, and economical operation of Title XVIII, Public Law 89-97 ("Medicare"), as it affects this State.'

Respectfully submitted,
J. W. R. Norton, M.D.,
State Health Director

There being no further business, it was moved and seconded that the meeting adjourn.

Note: The State Medical Society Executive Committee meeting also on August 26, 1965, at Duke University, voted unanimously to recommend to Governor Moore that he designate the State Board of Health as the Agency to carry out the provisions of Title XVIII. On August 31, 1965, Governor Moore designated the State Board of Health to fulfill the provisions of Title XVIII.

December 2, 1965

The regular quarterly meeting of the N. C. State Board of Health was held Thursday, December 2, 1965, 1:00 p.m.-4:00 p.m., in the Board Room of the Cooper Memorial Health Building, President Lenox D. Baker, M.D., presiding. The invocation was given by Dr. Oscar S. Goodwin.

All Board members were present:

Dr. Lenox D. Baker
Dr. James S. Raper
Dr. Ben W. Dawsey
Mr. Samuel G. Koonce
Dr. Oscar S. Goodwin
Dr. A. P. Cline, Sr.
Dr. Joseph S. Hiatt, Jr.
Mr. J. M. Lackey
Dr. Howard P. Steiger

In addition to the Board members, there were a number of staff directors and their assistants present, and each introduced himself and gave a brief outline of his duties and responsibilities.

On motion duly made and seconded, the Minutes of the August 26, 1965 meeting were approved as circulated.

Mr. J. M. Jarrett, Director of the Division of Sanitary Engineering, presented a proposed request for the Creation of the Maggie Valley Sanitary District in Haywood County, North Carolina. He stated that all documents and transactions had been examined and approved, and were found to be in accordance with the General Statutes of North Carolina; and, therefore, the Sanitary Engineering Division recommends that the Creation of the Maggie Valley Sanitary District, Haywood County, be approved. Upon motion of Dr. Raper, seconded by Mr. Lackey, the request for the CREATION OF THE MAGGIE VALLEY SANITARY DISTRICT, HAYWOOD COUNTY, was approved.

Mr. Jarrett also discussed a request for the creation of the Cliffside Sanitary District. He stated that the Division was of the opinion that a sanitary district would improve the sanitary conditions in the area and provide an adequate water supply and sewage treatment facilities. All documents and transactions have been thoroughly investigated by the Sanitary Engineering Division, and found to be satisfactory, and in accordance with the provisions of the General Statutes of North Carolina as amended by the 1965 General Assembly. In view of this, he recommended to the Board that the Cliffside Sanitary District be created as requested. On motion of Dr. Dawsey, seconded by Dr. Goodwin, the CREATION OF THE CLIFFSIDE SANITARY DISTRICT, RUTHERFORD COUNTY, NORTH CAROLINA, was approved.

Then Mr. Jarrett discussed the criteria for marine toilets which were adopted by the State Board of Health at its regular meeting in Raleigh on January 9, 1964. These criteria were established at the request of the U. S. Army Corps of Engineers and applied to John H. Kerr Reservoir and W. Kerr Scott Reservoir. Mr. Jarrett recommended to the Board that these criteria be repealed. On motion of Dr. Raper, seconded by Mr. Lackey, the criteria for marine toilets adopted on January 9, 1964, were repealed.

For the purpose of carrying out the provisions of Chapter 75A-6 of the General Statutes as amended by the 1965 General Assembly, Mr. Jarrett presented revised standards for the approval of sewage treatment devices and holding tanks for marine toilets to be installed in vessels operating on the inland lake waters of the State. These rules were discussed and on motion of Dr. Raper, seconded by Dr. Dawsey, the recommended DESIGN STANDARDS FOR MARINE SEWAGE TREATMENT SERVICES and HOLDING TANKS, were adopted. (Copy filed with Minutes)

Dr. W. Burns Jones, Director of the Local Health Division, gave a brief report on Home Health Services, for information.

Dr. James F. Donnelly, Director of the Personal Health Division, gave a report on the present status of the PKU Screening Program. He stated that the pilot program for PKU screening has been completed and that it appears from

the data compiled so far that the method will be highly selective within a day or two after birth, so that the screening program can be carried out while the newborns are still in the hospital. The program will be available Statewide beginning January 1, 1966.

Also, Dr. Donnelly reported that the expansion of Crippled Childrens' program which now supports orthopedic disorders, congenital malformation, burns, speech and hearing problems, rheumatic heart disease, convulsive disorders, and cystic fibrosis is expanding its services to include support for asthma and diabetes. This has been made possible by an increase in federal funds for crippled children's services of approximately half a million dollars.

President Baker explained the recent publicity in the Durham Herald, read the headlines, and quoted from the newspaper articles. Don Kellum, a reporter for the Durham Herald held a news conference with Dr. George O. Moore in which Dr. Moore was quoted as labeling the medical group as a hard group for the State Board of Health to work with. President Baker and Dr. Norton both called Mr. Kellum. The next morning the headlines, again on the front page were "NORTON AND BAKER ISSUE REBUTTAL . . ." President Baker then set up a conference with Dr. Moore, Dr. Norton and the reporter in his office. Dr. Moore retracted everything in the interview and President Baker gave the reporter some of the background of the State Board of Health, including the fact that it is a child of the Medical Society of the State of North Carolina. The next morning there was a very short statement which President Baker also looked up the word "discipline" in the dictionary (with reference to his remarks concerning disciplining the physicians under the Medicare program) and read several definitions of discipline and stated that the one most applicable was "body of laws or practices which may be altered to meet changing conditions, distinguished from nature and divine laws."

President Baker informed the Board that that morning there was a meeting of the Executive Committee of the Medical Society of the State of North Carolina, the State Hospital Association and the State Board of Health, and their Executive Secretaries. They came out with a motion to the effect that "we were requesting the Medical Society of the State of North Carolina and the State Hospital Association to work out some guidelines of instructions, recommendations and disciplinary lines to the members of the medical profession and to the hospitals and to the members of the Board of Trustees of the hospitals as to how these along with the State Board of Health could best implement Medicare in this State, and that after they had reached this conclusion or recommendation that it would come back to this Board for our consideration of approval, and with that in mind one of them or both write one letter and sign it, to the effect that they had recommended to the State Board of Health the following things with regard to the utilization review committees on who should be hospitalized and how the reports should come in. We had full cooperation of the group attending this morning meeting."

Dr. Goodwin moved that the Board approve the action of the group which met just prior to the Board meeting, and Dr. Cline seconded. Passed.

Dr. Jacob Koomen, Jr., Assistant State Health Director, discussed briefly the Appalachian Regional Commission's role in health. A twenty-five (25) mem-

ber Health Advisory Committee, is in the process of establishing guidelines for implementation of the health related portions of the Act.

As information to the Board, Mr. Ben Eaton, Jr., Director of Administrative Services, reported on the untimely death of Mr. Walter Croy, Assistant Budget Officer, which occurred on October 19, 1965. Mr. Eaton spoke of the invaluable service that Mr. Croy had rendered and referred to him as a very able and fine gentleman.

Mr. Eaton also reported briefly on the budgetary progress of the new program entitled "Home Health Services" which was discussed earlier by Dr. W. Burns Jones. He stated that the State matching requirements for this new program is one dollar ($1.00) for each ten dollars ($10.00) provided by the Federal Government which is on an exceptionally favorable basis. The State will be required to provide approximately $20,800 for this new program which, at this time, we are seeking to arrange within the overall budget of the Department.

Mr. Eaton suggested to the Board that each member may wish to review his copy of the proposed Agreement between the Department of Health, Education, and Welfare, and the State Board of Health concerning the administration of the Medicare Program. This proposal which has not been executed, outlines the major responsibilities of the State Board in dealing with this program.

As information for the Board, Dr. Norton gave brief verbal reports on the following items of interest:

(a) Signing of the Medicare Agreement ceremony to be held in the Governor's Office at 11:15 a.m. Monday, December 6, 1965.

(b) Conference to be held on December 15, 1965, with representatives from the Social Security personnel regarding Medicare, budget, personnel, etc.

(c) Meeting in Pinehurst for orientation, etc. on Medicare January 27-30, 1966.

On motion duly made and seconded, the Board meeting adjourned.

SPECIAL SESSION

December 2, 1965

In a special session of the Board held on December 2, 1965, North Carolina State Health Director, Dr. J. W. R. Norton submitted his resignation. He asked that the resignation, submitted because of health reasons, be made effective December 31, 1965. As requested by the Board, Dr. Norton agreed to assume a position in the State Board of Health other than that of State Health Director or Assistant State Health Director. The Board and the Board of Health expressed regrets over Dr. Norton's resignation, and appreciation for his services as Director during the past seventeen and a half years. Dr. Norton's letter of resignation is filed with the official Minutes.

After discussion, the Board, subject to the approval of the Governor, took the following action: (1) Named Dr. Jacob Koomen Acting State Health Director

and Secretary-Treasurer for the remainder of Dr. Norton's appointment; (2) Named Dr. W. Burns Jones, Jr. Acting Assistant State Health Director for the remainder of Dr. Koomen's appointment.

President Baker, Dr. Cline and Dr. Norton conferred with Governor Dan K. Moore concerning the above recommendations to the Board. Governor Moore gave his approval to the action of the Board.

Dr. Koomen was sworn into office at noon Tuesday, January 4, 1966, in the John H. Hamilton Auditorium of the Laboratory Division of the State Board of Health. Dr. Lenox D. Baker presided. Governor Dan K. Moore expressed appreciation for Dr. J. W. R. Norton's long service and confidence in Dr. Koomen's leadership for the future. North Carolina Supreme Court Justice Susie Sharp administered the oath of office.

May 4, 1966

The North Carolina State Board of Health met in conjunction with the annual session of the Medical Society of the State of North Carolina in the Grove Room, Battery Park Hotel, Asheville, Wednesday, May 4, 1966, 8:00 a.m. to 8:30 a.m. Dr. Lenox D. Baker, President of the Board, presided.

Attending: Lenox D. Baker, M.D.
James S. Raper, M.D.
Ben W. Dawsey, D.V.M.
Oscar S. Goodwin, M.D.
A. P. Cline, Sr., D.D.S.
Joseph S. Hiatt, Jr., M.D.
J. M. Lackey
Howard P. Steiger, M.D.

Absent: Samuel G. Koonce, Ph.G.

In addition to the Board Members, staff members present included: Dr. Jacob Koomen; Dr. W. Burns Jones, Jr.; Mr. J. M. Jarrett; Dr. Edwin S. Preston; Dr. William A. Smith; Mr. W. Gordon Poole; and Mrs. Doris P. Sitterson.

Dr. Baker pronounced the invocation. The Board approved the minutes of the Board Meeting held December 2, 1965, as circulated.

Dr. Koomen gave a brief report on the activities of the Board of Health during the past four months. Board Members expressed approval of the new procedure of receiving periodic letters from Dr. Koomen describing State Board of Health activities instead of the bulky mimeographed Reports of the past. Dr. Koomen reported on the preparation of the "A" Budget, which is now completed; and the "B" Budget which is being compiled. Dr. Koomen stated that we are hard at work on the implementation of Medicare. North Carolina is well ahead of most of its neighboring states.

Dr. Koomen reported to the Board his action in appointing Dr. Lynn Maddry as Director of the Laboratory Division of the State Board. Mrs. Corrina Sutton will serve as Acting Assistant Director of the Laboratory. Miss Elizabeth S. Holley, formerly on the staff of the School of Public Health, UNC, has been

named Chief of Public Health Nursing Section. Dr. William A. Robie has accepted the position as Chief of the Heart, Cancer and Chronic Disease Section, within the Personal Health Division.

Dr. Koomen expressed his appreciation to the Board for all the help they have given him and the other members of the staff.

Mr. Jarrett, Director of the Sanitary Engineering Division, presented, for the approval of the Board, a request for the extension of the Rural Hall Sanitary District in Forsyth County, North Carolina. He stated that his office had examined the documents, including an original petition from the residents, and that they were in compliance with the statutes as required by law. Mr. Jarrett therefore recommended approval of the request for this extension of the Rural Hall Sanitary District. Dr. Raper moved THAT THE STATE BOARD OF HEALTH APPROVE THE REQUEST FOR THE EXTENSION OF THE BOUNDARIES OF THE RURAL HALL SANITARY DISTRICT IN FORSYTH COUNTY, NORTH CAROLINA. The motion was seconded by Mr. Lackey and passed.

For his second presentation, Mr. Jarrett stated that his office had received a request for the extension of the Yanceyville Sanitary District. He further stated that all documents and transactions had been examined and approved, and were found to be in accordance with the General Statutes of North Carolina; and therefore, the Sanitary Engineering Division recommends approval of the extension of the Yanceyville Sanitary District. A motion by Dr. Steiger THAT THE STATE BOARD OF HEALTH APPROVE THE REQUEST FOR THE EXTENSION OF THE BOUNDARIES OF THE YANCEYVILLE SANITARY DISTRICT IN CASWELL COUNTY, NORTH CAROLINA, was seconded by Dr. Raper and carried.

Mr. Jarrett brought before the Board for their approval a list of acceptable marine toilets. For detailed explanation, see materials in official files. Dr. Goodwin moved THAT THE STATE BOARD OF HEALTH APPROVE THE LIST OF ACCEPTABLE MARINE TOILETS AS PRESENTED. Dr. Raper seconded the motion and it was passed.

There being no further business to come before the Board, the meeting was adjourned.

In a brief Executive Session following the General Board meeting, Dr. Jacob Koomen was officially elected as State Health Director, Dr. W. Burns Jones was elected Assistant State Health Director. Both elections were to become effective upon approval by Governor Dan K. Moore. The Governor's approval was secured by phone by Dr. Baker on this same date.

CONJOINT SESSION

CAN "MEDICINE" OVERCOME TECHNOLOGICAL CIVILIZATION?

May 5, 1965—Address by William L. Wilson, M.D.
Chief, Occupational Health Section, North Carolina State Board of Health.

"Not only in antiquity, but in our own times also laws have been passed in well-ordered cities to secure good conditions for the workers; so it is only right that the art of medicine should contribute its portion for the benefit and relief of those for whom the law has shown such foresight; indeed we ought to show peculiar zeal, though so far we have neglected to do so, in taking precautions for their safety, so that as far as possible they may work at their chosen calling without loss of health".—Ramazzini

Two and a half centuries ago Ramazzini, the father of occupational health, challenged "medicine" thus. Our neglect persists. Hence, it is appropriate at this time to devote attention to this subject. A State Board of Health occupational health study of some circumstances which affect our citizens' industries, property, health and lives, required by statute, recently has identified these matters in this State.

To "show peculiar zeal" we must start with uniform terms. Members of this Society and the North Carolina Governor's Council on Occupational Health have agreed upon "occupational health" as the adequate protection and maintenance of the physical and mental health of every working person in order to permit useful, productive work as he continues emotionally and psychologically suited to his job.[1] An employee's health can be evaluated only by a physician, practicing modern occupational medicine. "Industrial hygiene", requiring scientific procedures of industrial hygiene surveys, recognizes, identifies and evaluates the work environments' factors which may or do cause diseases in employees who would not be ill if not so exposed because of their work.

Occupational health protects employees' personal health only when hazards in their work environments are controlled. Such control differs from that used against communicable diseases, chronic diseases, accidents, and other health problems, because it is subject legally to so many third party controls of differing legal, economic, and other origins. The third party is the employer, legally charged with controlling the work environment.

The "productive population" comprises **all** adults employed in **every** gainful manner, wherever they may be. Lack of occupational health jeopardizes not only one individual of this productive population, but co-workers, and the whole 2/3 non-productive population, hence the whole community. Thus, the economic, educational, health, social and sociological status of the whole community, their improvement or retrogression, is at stake.

Occupational health succeeds only after effectively applying preventive medicine's industrial hygiene to work environments, and its occupational medicine to its working persons. When preventions fail additional clinical medicine must be provided on the job, but even more off the job, at the inevitably

increasing costs of therapeutic medicine, hospitalization, and rehabilitation. Other detrimental community losses are mounting costs of compensation, sickness or disability and other insurance benefits, and even death benefits. All of these essential but scarcely amending gestures forecast consequent future reductions in health protection.

Current technology compels expanding medical understanding of the chemical, physical, and biological factors, eternally changing in our environments, whose continually changing hazards can cause diseases acquired from air, water, earth, foods, and the many work environs which must benefit and serve us. Our employers pay many persons to engage in those public health programs and preventive medical practices designed and known to protect the productive population from occupational diseases. However, they and all others controlling community health resources, with medical guidance, also must engage helpfully in the practices of preventive medicine. Occupational health, therefore, is an outstanding example of a community's pre-set "survival" stand for private enterprise.

Occupational injury and disease, legally defined as well as defined by us medically, may be relatively harmless, but they may cause disability. Disability also is defined both medically and legally. Regardless of how consistent and beneficial these definitions may be, disability reduces or stops normally gainful, productive work. Therefore, we must answer for unjustified medical failures to prevent disability.

The nature of an occupational disease deserves special attention: its demonstrated personal job exposure to the causative agent, with the known degree and time required for personal response; its typical clinical effects known to come from this agent; its lack of identification as something else; its previously proven capability of producing this response in man. Characteristically, removal from exposure usually results in improvement. The personal effects of occupational diseases are measurable; they can be evaluated, but only by a physician.

Our 30-year old occupational disease program applied to a very few North Carolina work places does protect the health of only a few employees. Yet, our progress for over three centuries has depended upon the health of the whole productive population, clearly limited by extent of their production, income, purchase of goods and services, beneficial taxation, and most simply, their votes. Hence, political attention is given increasingly to "medicine". We may well ponder Disraeli's 1877 advice that "The health of the people is really the foundation upon which all their powers as a State depend."

If you examine Table 1 filed with this report, you will find reflected numerous Federal and 32 State Board of Health statutory responsibilities, grouped administratively into three scientifically separate programs: (19 tables and 5 figures are available upon request in a supplement to this report.)

The oldest for 30 years has demanded industrial hygiene study of occupational diseases and direct diagnostic services to the North Carolina Industrial Commission. This is a vital program which must continue even though too late to protect any productive population's health. It is the only program we can show significantly implemented to date.

A second (eight years old) program requires preventive studies of job-created (occupational) health hazards so as to eliminate or reduce them. Adequate means have never been established for more than merely token compliance.

A third (six years old) program ostensibly protects the present and future population effectively against somatic and genetic effects of ionizing radiation exposures. However, the Board's authority to undertake this with respect to 4/5 of all public radiation exposures was removed by a 1963 legislative amendment even before the 1959 Act could be implemented by the Board, or by any other agency.

Statutory priorities have limited industrial hygiene studies to 300 "dusty trades" with some 7,000 employess only. This continually leaves only 1/5 of our capabilities available for all remaining employers and 1.7 million employees. Must we have a crisis to improve this situation? Unfortunately in previous public health needs the answer too frequently has been "yes". Yet, Rene' Dubos has inquired two and a half centuries after Ramazzini, "Is it not the responsibility of medicine to be concerned with the problems posed by the long-range responses that the body and the mind make to the new threats created by technological civilization?"

Does not medicine's long-range concern call first for measurements of where we are now? Military occupational health failures long have been evaluated by the status of "daily non-effectiveness". Every command applies the standardized "non-effective rate", a general measure of the prevalence of all disease and injury causing "excuse from duty status". The Army daily average non-effectiveness is about one percent. Our own comparable civilian non-effectivness probably is between three and five percent. To counteract non-effectiveness, now and long-range, occupational health compels "medicine" to do positive professional things about the socio-economic factors involved, and employers to heed the medical and health significance of their work environments, and their own workers' personal health conditions.

To summarize to this point, then, our studies indicate we must evaluate the whole population involved, the productive population, all health risks faced at work, industrial hygiene controls of those risks, the effectiveness of occupational medicine for the productive population, and the whole community or public health. All of these measure the community non-effectiveness, the opposite of which is effectiveness. Occupational health is effectiveness.

Almost 2/3 of our whole population still live "rural". Our median age is four years under the Nation's, yet life expectancy has increased nearly 16 years since 1920. All of this controls our current "productive population", with changing birth rates, with increase of those over 65, and with increasing female to male ratio over 65.

The "productive population" must produce the future generations, educate and serve present and later generations; maintain community continuity by government; guide the future; and "research" the changes, the improvements, and the increased productions, required.

At the turn of the century while the United States productive population was 57 percent of the whole, small families assured that by 1940 it would be

near 65 percent. North Carolina's productive population today is some 61 percent, the United States just over 50 percent. Thus, controlling factors for Dubos' "technological civilization" have been our productive population's ages, variable birth rates, mobility, urbanization, industrialization, mechanization, automation.

Our agricultural workers comprise under 1/4 of the 1.7 million employed. Our total non-agricultural employment, and our manufacturing employment, have been increasing about 3 percent per year. Recent data show over 42 percent of our non-agricultural employment now is in manufacturing.

In this framework agriculture, industry, and medicine are changing, are ever more complex, and must adapt to the very rapidly increasing work environmental hazards to our people. North Carolina measurement of these hazards, and the provision of control measures, are not increasing appreciably. These circumstances assure disadvantages to all of us.

How can North Carolina afford economically not to protect and maintain the health of its all-important productive population? With our manufacturing and farm workers' earnings already considerably below national averages, interruption reduces the family funds required to protect the entire family health. Family medical care costs have risen; the total community economy, unfortunately, has been reduced. The increased costs apply to every community interest.

For the costs of disability recall North Carolina's share of acute health conditions at some 10 million persons in 1963. In 1961 every person 17 and over averaged 5.4 work loss days. Our people have their share of the 74 millions having also one or more chronic diseases. The older the person over 44 years, the greater is the incidence. Our State Health Plan five years ago added occupational health objectives clearly defining for the first time this matter, and listed actions hopefully to benefit our aging productive population with their increasing chronic illnesses.

The family outlay recently for personal health services to meet all these acute and chronic family health problems is about five percent of their income. Yet, the total expenditures for health and medical care showed a 24 percent increase from 1940 to 1960. What was purchased? The medical care price index more than doubled between 1940 and 1961.[2] The result? In North Carolina, farm families have used less than half the treatment services they needed; of the necessarily small amounts they spent for health, less than 4 percent has gone for diagnostic and preventive services. We don't even have similar non-farm family expenditures data.

So much for the employee costs. What about the resultant increased costs to our vulnerable North Carolina employer, for example on absenteeism, compensation and medical care costs, production lags, reduced production, and the costs of replacement of lost personnel? Personnel studies have revealed the average cost of replacing an employee at $3,000![3] Thus, every employee kept healthy and on the job, selfishly, means more dollars to all of us.

No segment of our population has had its health so patently and generally neglected as our 61 percent working adult age group. The remaining 39 per-

cent have had gratifying attention. Very few of our working people have occupational health programs.[4] When or how else, can they possess health?

Table 2 of the supplement shows the likely distribution of the average employee's weekly 168 hours. Then, Figure 1 shows why the only channels "medicine" can keep open to this productive population in promoting their health exists during their "8 to 5" work hours. Medical practice, hospitalization, and health department services, are all available only these same hours, except for true emergency to protect, maintain, or restore their health, or rehabilitate them to effective productive capabilities.

Four years ago, the Vice President, North Carolina State Board of Health, wrote several pertinent statements on this matter, of community responsibility to the employer, of State Board of Health responsibilities. Doctor John R. Bender, himself in practice, went on to state: ". . . this does not minimize the obligation of the individual practitioner. Practicing physicians must also provide advice and local leadership for employers." The more a State Board of Health may participate effectively in promoting occupational health, Doctor Bender wrote, ". . . the more professionally gratifying and compensable will be the private practice of medicine and the furnishing of health services by practicing physicians."[5]

Is it not time now for "medicine" to examine itself? In 1962 only about one percent of all United States medical specialists practiced occupational medicine.[6] We find that the known full- and part-time North Carolina occupational medical practices serve less than one percent of our productive population. This is compatible with our latest Society Roster of Members (December, 1964) where one can identify 68 "PH" (public health) physicians, but only 17 "Ind" (industrial practice) and 7 "Ins" (insurance practice). All of us know that, few as they are, more than 24 North Carolina physicians engage in occupational medical practice. Why then, if not consciously concealing, would our colleagues at the same time not openly declare their occupational practices available?

To stabilize this occupational medicine itself, with pre-planned health department and medical society supports, needs immediately to correct universal misconceptions of the medical practice and health departments by an aggressive, factual, impressive educational program; help all physicians to know complex ecological effects of changes occuring in agriculture, industry, and medicine, so they can interrelate and apply to these changes their "know-how" in preventive medicine; prove that what has been done up to now by occupational health has been medically effective, rewarding, professionally gratifying, and has improved some of our communities socio-economically; convince physicians that compensation practice may be modestly remunerative, but cannot benefit physicians, the victim, or the community equitably when the disease or injury should have been prevented medically; persuade more physicians and health departments to furnish aggressively those preventive services long ago over-due to their own people.

Irrefutable statement of some facts and candidly driving them home fearlessly to all of our colleagues is required. None can succeed alone. Health departments must furnish clear concepts of the current health status, spot-

light lessons of the past, and periodically recommend the rapidly effective and feasible undertaking by all of us for the future. While the remainder of this report summarizes and places examples sharply in focus, only this Society and the State Board of Health may determine jointly a future course of effective responses. Come alive then—we **are** in the productive population generation!

How can our society measure the North Carolina record? We have examined the causes of deaths, their numbers and rates, as heart, malignancy, central nervous system vascular lesions, accidents, pneumonias. They do not correlate with occupational disease incidents. We have given attention to diminishing communicable and other diseases, to increasing traffic accidents, to the numerous other but more adequate health programs. Yet, who can remember one recent publication about increasing costs or medical implications of North Carolina occupational injury and illness of non-compensable nature, or the workmen's compensation cases, as deaths or case incidence?

Infectious diseases will be here always, as a matter of changing biological balances, between man and other organisms as well as the rest of the biochemico-physical environment. But just think—during all of 1964 all of our 2,200 cases of those communicable diseases earning close watch[7] were only 1/4 as many as we averaged for occupational injury and illness reported to our Industrial Commission **every month**; in 1964 there were only 1/4 as many of all of these as there were cases of working people who proved compensable under the Workmen's Compensation Act; less than 1/20 as many of these as were injured in traffic (1581 killed, 49,124 injured in 1964).

To question further our imbalance in measuring health significance, keep in mind that these traffic victims seldom elicit the sensational attention given to just one serious injury or death due to a rare radiation accident. Similarly, the 1964 occupational health problems, considerably out-numbering traffic and significant communicable disease cases combined, are ignored.

Why does "medicine" not determine medically why our people have job-caused injury or illness? Or why do people have nonjob-caused disabling illness and injury? How will valid answers benefit our productive population, our economic production, the individual employer or employee, their health, their personal physicians? How shall we relate our answers to ever-changing balances between work environment factors and individual personal factors of the individual employee, and then provide Bender's "local leadership" to protect his health? When Doctor John W. Morris reported last year in our own Medical Journal on the 1962 Workmen's Compensation Act medical payments of $25,000 daily,[8] who reported how much was because preventive medicine and occupational health were "missing in action"? There were active accident prevention programs. But both always will be necessary. How much did local managements, physicians, and health departments use information furnished to them about existing or new industries, or about State or local health department services available to their own employees?

In 1964 there were nearly 99,000 on-the-job injuries and illnesses, and not all are reflected. One hundred seventy-nine "fatal injuries" reported to our Industrial Commission were due predominantly to falls, motor vehicles, and

electrocution, but to "heart" with ever-increasing regularity. How many deaths or cases were due to heart, other physical conditions of the employee, which could have been medically predicted, diagnosed, averted, controlled, treated, or otherwise neutralized?

Mere case incidence does not tell the sole management story nearly so much as the differing rates of incidence for certain populations at risk in certain types of industry or with total costs to certain employers in these same and other employee groups. Return to "heart" reports, then recall that 50 times more deaths in industry likely have occurred due to heart disease than to industrial accidents.[3] Why shouldn't all result in "occupational disease" compensation claims? Awards for such are increasing! No one can say what or how much the occupations in our "technological civilization" have had to do with this increasing heart, diabetes, arthritis, emphysema, other chronic pulmonary disease, or cancer, morbidity. How can our State have economic health with vacuous medical guidance?

Is the answer simple? Should not every employee have his personal health status established clearly by a physician's pre-employment examination? When justified, he should have special examination thereafter. Despite debated value of periodic examinations, how else can later personal health status be known? This is particularly significant because we have in prospect increasing chronic diseases and aging population, and a larger proportionate productive population.

Table 3 of the supplement shows you why four fifths of all State Board of Health industrial hygiene studies required by statute serve less than one hundredth of one percent of the non-agricultural employees in this State. Successes of the remainder worth your attention are shown in Table 4 of the supplement. If we could be ready, our new Research Triangle's Environmental Health Center and the University of North Carolina million-dollar Institute of Environmental Health Studies would support extensively our State's occupational health. But, we aren't ready.

Table 5 of the supplement summarizes data recently developed for the Governor of Pennsylvania, who sponsored a conference on occupational pneumoconiosis in late 1964. Pennsylvania's death rate had been more than eight times that of the whole United States for that disease, with over half of all such deaths in this country in 1960. At Pennsylvania invitation Canadian, British, and our North Carolina experience[9] were reported. The conference concluded Pennsylvania cannot meet its responsibility merely by furnishing diagnosis, treatment, compensation and insurance payments, to their pneumoconiotics.

North Carolina employers know that we reported significant economics. Four fifths of all compensation they had paid for preventable occupational diseases had gone for pneumoconioses. However, less than 1/10 of the much greater pertinent medical costs went to pay for medical treatment of these two diseases. This means that over 9/10 of North Carolina millions paid out for medical treatment of job-created injuries and illnesses has been due to generally preventable circumstances which are receiving sparsely effective preventive medicine or occupational health attention. Table 6 shows our average

annual compensation and medical costs 1936 to 1940 were 1.6 million dollars for over 40,000 people forced off the job by occupational injury and illness every year. The annual compensation and medical costs for over 85,000 people during each of the latest five years averaged 15.5 million dollars. Costs soared at far greater rates than did any other measurable factor. How unjustifiably is North Carolina now wasting its manpower, its health, therefore its productivity, its property, its economy, its lives? Some economic and social implications of these facts, which "medicine" should examine, follow.

As total cases have doubled, the compensation trebled, but medical costs for the compensated employees went up five times. Where cases received no workmen's compensation the medical costs only trebled! What consolation is found in this? Even more unflattering medically, during each of the past five years of modern "medicine" 85,000 employees have averaged 1/3 more days lost per case per year than half that many experienced at the start of this program 30 years ago. Recall, if you will, the income and health expenditure data mentioned earlier. What advances can North Carolina "medicine" claim here?

Our own State documentation proves that adequate occupational health has given a few North Carolina employers opportunities to stay in equitable competition with others. For example, the hazards of silicosis have been reduced consistently by the cooperation given by some 300 "dusty trades" employers. This 30-year program, required by law, has resulted in periodic industrial surveys to protect employees from dust hazards of their work areas. See Tables 7 and 8 of the supplement.

The law required also pre-employment and annual physical examinations of all exposed employees, always with chest x-ray films, an estimated total of 12,000 persons. Their results permit us to examine some socio-economic effects of silicosis.

Table 1 showed six State agencies involved in this program, the State Board of Health in the health aspects. Table 9 and Figure 2 of the supplement show a few work environments selected at random where effective industrial hygiene attention reveals markedly reduced silicosis health hazards. Figure 3 of the supplement shows you that pre-employment and annual employee medical examinations have reduced employee case incidence. These measures have assured many more man-work years before silicosis was diagnosed. Due to their longer employment, and older ages at diagnosis, greater retirement, social security, and other benefits have accrued to these individual employees, their families, and their communities, once diagnosed. We have demonstrated also prospects of reduced workmen's compensation payments and medical care costs, employees' replacement costs, and many expanded related benefits.

Figure 4 of the supplement shows all our silicosis diagnosed in the past 30 years. Nearly half exceeded the early or Grade I case in severity. Figure 5 of the supplement shows you that in the past five years only 1/4 have done so, and in the past three years only 3 percent. By now a North Carolina dusty trades employee has only 1/20 as much chance of a diagnosis of silicosis as he had in 1935. There has been no case of silicosis diagnosed in North Carolina during the past six months!

We have identified the vulnerable employees, the hazards, and the cases. We have ended harmful exposures of cases. We have progressed towards elimination of silicosis, and added inevitable beneficial byproducts. For example, Table 10 shows an annual average of 42 employees during the past five years who learned of other previously undiagnosed serious pathology, predominantly cardiac, and were referred promptly to their physicians for treatment. Table 11 shows we are examining the expanding problem of pulmonary emphysema.

See Tables 12 to 19 of the supplement for Examples "A" and "B" selected from our records. These two firms summarize the pertinent points I have presented. Of course, exposure at different jobs within each firm, or between the firms, have not at all been equally hazardous. With average age of the total of 178 silicosis cases diagnosed the past ten years at 50, they were older for the more severe cases. Consider "A", with average employment of about 300, a plant where improved work environment has been evident, and "B" a firm with average total employment about 70 where significant work environment improvement has not been discernible. Very few of "A's" 46 cases had under 10 years exposure, 4/5 had more than 20 years. "B's" 37 cases showed clearly the opposite. In the latest 10 years diagnosed "A" employees have averaged 21.5 years older than "B" employees. "A" profitted more than "B", by medical examination and other measures, so that far fewer "A" cases had had prior employment exposure than "B". "A" cases with prior employment exposure had more than twice as long exposure during "A" employment as did similar "B" cases during "B" employment. "A" profitted more than "B" in screening applicants also with no prior employment exposure. Such "A" employees had more than double the years of exposure, at times of initial diagnoses.

As a result of our study we know that identifiable worth-while preventive measures have caused at least one serious, expensive, occupational disease in North Carolina to be disappearing; this is because the likely serious hazards of the specific work environment, and the risks of damaging individual employees' health, have been anticipated and measured by the employer wishing to protect his individual employees' health, not true where an employer is not so doing. To present one or more exceptions cannot impressively rebut the facts. We have distinguishing honors to add to these factual achievements.

North Carolina "medicine" should be proud that since our last meeting our fifth industrial medical program, Hanes Hosiery Mills Company, has been awarded the prized Occupational Health Institute's Certificate of Health Maintenance. A month ago this same Company, through Mr. Gordon Hanes, President, received the Industrial Medical Association's 1965 Health Achievement in Industry Award. This is only the second southeastern (1955), but the first textile, and the first North Carolina industry, program ever to receive this Award since its origin in 1949.

Dubos' "medicine" is not failing North Carolina's "technological civilization" because we are scientifically or quantitatively lacking. We are failing, however, and far more than justified. Where we fail, is it not because North Carolina "medicine" does not sufficiently "show peculiar zeal" Ramazzini identified long ago as so necessary, ". . . in taking precautions for their safety, so that as far as possible they may work at their chosen calling without loss of health"?

There is hope. All but 420 of us in only 17 local medical societies have ready-made channels for "zeal"; namely, our State Society's Committee on Occupational Health and the 58 local Society Committees on Occupational Health, all with designated and published chairmen. Yet, why does only one local two-county society of over 350 members have no designated chairman, when never before have we had so many local chairmen serving so many as we do this year?

The State needs both expanded occupational programs and more industrial hygiene services. What prospect of failure has "medicine" if our State and local committees will be our active agents, will recruit joint actions by their own members and local employers, local health departments, and the State Board of Health staff, in their support, and if "medicine" will lead the State to increased preventive medical and industrial hygiene services? None, because even at this late date vigorous occupational health action by "medicine" can assure North Carolina's competitive stature in this day of "survival" economics. Let not Ramazzini have reason to haunt us!

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CONJOINT SESSION

May 4, 1966—Address by Jacob Koomen, M.D., M.P.H., State Health Director

This is the time when we annually report on the stewardship entrusted by the Society and the citizens of North Carolina to the State Board of Health.

I recall to you the fact that the State Board of Health is a nine member body, four coming out of the Society and five appointees of the Governor. Those from the Society are Dr. Goodwin, Dr. Raper, Dr. Hiatt and Dr. Steiger, all well known to you for their achievements within the Society and outside of it. The Governor's appointees are: Dr. Baker, whom you have just heard introduced with the appropriate praise due his achievements; Dr. Dawsey who represents so well the veterinary profession; Dr. Cline, representing in like manner the dental profession and Mr. Lackey who represents the dairy interests of the state—all extremely important areas in the health field.

In presenting a brief accounting of what has been done, I should like to mention first, that this year brought the retirement of Dr. J. W. R. Norton as State Health Director after a period of nearly 18 years in this office—a period of phenomenal growth and phenomenal progress. He will be with the State Board of Health in the future as Director of Local Health Services.

The year of course has been an exciting one. Because, perhaps at least in my lifetime and yours as well, this is an era of great revolution in research, in knowledge, and in all the fields of health that have to do with prevention, with cure and with rehabilitation. Your Society, as reflected in those of us who belong to it, as reflected in the citizens, as reflected in your responsibilities, are all in this dynamic period of change and progress. Further than that, we share the anxiety over the truly terrible shortage of manpower and we look for ways of extending the arms of those already working.

The North Carolina State Board of Health is involved in some thirty programs. Many of these touch you frequently, some touch you each day. We have been well supported by the Board and, we trust the reverse is true, that we have supported them in like manner.

I should like now briefly to talk about the functions of the various Divisions, hitting only the high spots. In discussing thirty programs, obviously it is not possible to mention them all and we have in turn from year to year talked about one function or another.

I should like to give you a general overview of what is going on in public health in North Carolina.

First, I have to mention the matter of money. There is, of course, not enough spent on health; there will be more in the future. North Carolina, as you know, is the 11th most populous state and one which expects to have 5,000,000 people in September of this year. In the domain of direct public health our State spent $19,600,000 during the last fiscal year. This represents an increase of better than $3,000,000 over the year before.

Perhaps surprisingly, an increase of better than $800,000 came out of increased appropriations by local bodies. Public health is very well supported by the citizenry at the county level.

Our staff has grown, the State staff now stands at a level of 432 staff members and the Local Health Departments have another 1,500 working close to those they serve. North Carolina has one of the largest public health organizations in the Nation as suits its particular health needs. And, if I might say so as an outsider, it also has the best.

We distribute, as you know, THE HEALTH BULLETIN, with a circulation of 47,000 per month.

We have a Public Health Library of our own and more than 8,000 visitors were recorded there last year.

Our Film Library—known to all of you since you are frequent borrowers from it, as are the colleges, the schools and the churches—had a circulation of almost 43,000 films last year.

The recording of data in an organization such as ours leads to astronomical numbers of pieces of literature, important ones like birth certificates and death certificates, and all of our correspondence. Of these we had more than 277,000 pieces permanently recorded. And I might say that, lest you feel this is an outgrowth of red tape in North Carolina government, it is not. North Carolina government is a superbly efficient, smooth-running government; virtually devoid of the sort of criticism, perhaps I should say devoid of this sort of criticism, which one so often thinks of in the sort of American humor that has to do with red tape. Our governmental system is efficient and simple and there is no red tape, in my estimation.

In the matter of publications we supply to the citizens, we publish not only THE HEALTH BULLETIN, but a great number of items on particular diseases and conditions in our state.

I move now to the Division of Dental Health. Let me say, as preamble, that in a presentation before the Advisory Budget Commission one year, I discovered that were the dental health as it ought to be for North Carolina children, those in the first six grades would be expected to have some 17,000,000 teeth altogether.

Think of the opportunity in the field of dentistry. Think of the number of dentists we have and, like all health professionals, how many more we need. But they work desperately to correct, to cure and to prevent. And I'll have something to say later about prevention. Not only in the personal office prevention sense of the word but, as you know, at the State Board of Health we have a reasonably large staff of dentists who function with the schools in prevention programs and illustrate some curative aspects. Here too we have expanded so that we now have an internship in public health in dentistry. An increasing number of dentists are turning to public health as a career and their importance is being recognized.

Last year for the first time we had a Federal appropriation specifically geared to dental needs. We have had interest in oral cancer and through these programs and with the cooperation of the practicing dentists five cases of oral cancer were discovered in 1964 and fifteen in 1965.

And finally of great interest to us all, the dentists together with the engineers and other North Carolinians have combined to push the use of fluoride in the water whenever this is possible. Every effort is put forth to enhance and increase the number of communities using it. There are now some 84 towns which fluoridate their public water supply. These cover a population of about 1.4 million and we can now state that 31% of the population is covered by fluoridated water supplies.

I could go on, but in the interest of time let me turn to a third of our seven divisions, Epidemiology.

Now the term Epidemiology is a broad one and has to do with events among the people and quite clearly all of man's endeavors would fit into this. At the State Board of Health the Division of Epidemiology performs many of the functions filled by Divisions in other states which are labeled Divisions of Preventive Services.

The Division of Epidemiology works in Communicable Disease, in Occupational Health, in Radiation Protection, Tuberculosis, and Venereal Disease. It records the births and the deaths, the marriages and divorces. And it is interested in Accident Prevention.

But among the things that were looked into this past year were the matters of a large epizootic of Eastern encephalitis; a follow-up program of all birth certificates to insure the fact that North Carolinians be adequately immunized against those diseases for which childhood prevention is possible.

We looked also into a follow-up of the smallpox vaccinations to see what kinds of reactions we were getting. At the State Fair this past year, in cooperation with the Medical Society, a booth was maintained for the tetanus immunization of those who would stop by. A great many were immunized and this proved to be a successful project.

There is more to be said. As you know, there is an epidemic of syphilis nationally, but this has been controlled and halted in North Carolina. And further than that, venereal disease control and instructions have been given in a number of school systems. We have modernized, so to speak,—modernized is perhaps not the word—but we have put in a new Tuberculosis Program in line with national suggestions.

Because of wide spread increase in drownings in the state, the State Board of Health is concerned. We lose too many from drowning, often in multiples. There were a number of drownings in the past year in which four died simultaneously. We followed these up along epidemiological lines.

Of course we worked closely with the education system, whether this be at the elementary school level, the high school or the college level, in implementing our programs with them.

All of the birth certificates prior to 1945 have been microfilmed and, last year to add to our armamentarium, we had 97,000 births, 42,000 deaths, 40,000 marriages and 11,000 divorces.

I might inject a note here; the common statistical data which says that one out of every four marriages is dissolved by divorce would appear to be borne out by a casual glance at our data with 40,000 marriages and 11,000 divorces. Let me say, however, that this is a false statistical base, it is not the 40,000 who married one year out of which 11,000 are divorced.

The 11,000 that were divorced come out of all of North Carolina's marriages accumulated as of that time and the fracture rate there for marriage is far lower than the one previously given as one in four.

Let me say a word about the Laboratory, a large organization, a four story building, processing more than 650,000 specimens a year. Highlighted should be the fact that, in cooperation with Personal Health, a new program to follow up the possible occurrence of phenylketomuria was begun. This proved to be a highly successful program. You know that in the management of this metabolic defect if this can be discovered early enough, important destructive effects can be prevented. Further than that, there is a great saving of personal and public money which would be needed to maintain those who become mentally defective if not adequately treated in time.

Because of interest around air pollution, water and occupational health chemistries, the role of our chemistry program also increased. Again this year, the amount of cancer cytology, especially cervical cytology, became more important.

The infectious diseases, all of which have been with us since man began, had more precise techniques applied. Advance was made in the management of streptococcal diseases and syphilis.

I cannot speak without saying some words about our Local Health Division, the Division of which Dr. W. Burns Jones had been Director until he came into the role of Acting Assistant State Health Director, a very important role in the State. Dr. Norton will succeed him in the changes that have taken place.

In North Carolina we have had for nearly twenty years a Local Health Department for each of our counties. Some of these, of course, are combined in neighboring counties for the sake of efficiency, with a good Health Director serving several counties. But here too the role is one of increase in service. We do have, unfortunately, a considerable number of vacancies. In this area there are too few people in the health profession, a shortage felt world-wide and felt therefore among our health directors. We wish there were more health directors available. We look for expanding their efforts.

In cooperation with the Economic Opportunity Act, we have been educating people in the health education field. We have done a great deal of education within the nursing groups through self-teaching systems by correspondence.

Then too, we have for emergency purposes stored in the State some fifty disaster packaged hospitals, so that should a huge emergency occur these

can be unpackaged and used. These are 200 bed hospitals and are prepositioned around the state for disaster purposes. Fortunately we've not had to use them.

We have helped to sponsor a course in medical self-help so should there be a great disaster those who are not close to medical care could assist with help and carry on, we hope, through systems of self-care.

We have been working in the field of migrant health, important in North Carolina. Not only do we take from the migrant stream, but we add to it. Many crop harvests are dependent in part upon these migrant workers. Through increased sanitation and working in this area we have made definite improvements.

I come now to the Division of Personal Health, of which Dr. Jim Donnelly, a member of the Society, is Director. There are programs in crippled children, in correction of defects, the School Health Coordinating Service which is done between our organization and the Department of Public Instruction.

While more might be said, perhaps at this point a word would be timely about our relationship to Medicare. This will be a program at the Federal level and concerns those of us in the State who relate to it.

In size the Medicare program is difficult to project. There are more than 367,000 North Carolinians who will be eligible for this by virtue of the fact that they will be 65 or over when it begins. In addition to that, all of the health personnel will be affected as will the institutions with which they associate. This is not to mention the fiscal intermediaries, Pilot Insurance for Part B and the Blue Cross Family for Part A. This will touch the lives of all of us, our families, our elders and our institutions.

Excellent progress is being made in our North Carolina program. We are told that we are as far along in this as the guidelines will permit, and we are already off to a good and running start, though always one would wish to be farther along. We are off to a good running start because we have a good agency licensing hospitals in this state. We have a high proportion of hospital beds already accredited by the Joint Commission on Hospital Accreditation. These will virtually automatically be certified.

The three C's in which we work are Certification of Institutions, Consultation with them as they wish or ask for aid in how to proceed should they wish to participate, and, finally, Coordination. For these institutions will need agreements with each other, ordinarily only one with another, so patients may be efficiently transferred from hospital to extended care facilities, to home care programs.

I had opportunity to discuss this at length at the first general session on Monday, but let me add as a final word, that we are told that we are as far along as can be at this time. Your State Board of Health is dedicated to having this, as is the Society, the best Medicare program in the United States.

We have had superb cooperation, and I use the word advisedly, between our policy making Board of which Dr. Baker is President, and other members are in the audience, and the State Medical Society, the N. C. Hospital Association and such others as have direct relationship with the Blue Cross people.

I continue with a few closing remarks.

The last of our seven Divisions is the Sanitary Engineering Division.

It has been said, and I believe wisely, that more freedom from Communicable Disease has been bought and brought to us by sanitary measures than by any other. Whenever we increase our cleanliness, our education, improve our housing, improve all of those things in the broad scope of human welfare and when we begin to think of sanitation we improve man's lot. Sanitation increases his life, increases his freedom from disease and increases his usefulness. For that reason, among the oldest public health measures are those designed to improve the environment around us. In these days you know that includes not only cleaning it up in the microbiological sense of the word and making it free of disease but, in addition to that, the term sanitation already includes and will include in the future, beautification of the environment as well. Beautification is often no more expensive than any other system and is sometimes cheaper.

The Sanitary Engineering Division, in long and vigorous action, looked with great pains at many water supplies this past year, some 156 were added to those already in existence. We now have a total of 887 water supplies under supervision. As I noted earlier, 86 towns now have fluoridation of water.

We have looked at many restaurants, as you know when you travel through North Carolina. You see in our restaurants the grading signs. Those of you who have traveled considerably look first at grade signs for the large blue A, because this tells you much about the institutions. You see it posted in hospital lobbies, too, applying only to the kitchen, of course.

In many years of effort and in close cooperation with the restaurant industry the food service in North Carolina has been made a fine one.

In the matter of some of our specialized areas, for instance the matter of shellfish, there we worked for a long time with those who are in charge. Now, however, we have an arrangement between us, more legal and helpful than the former one which had been in use for some forty years. Our present inspection program is one in which we have manpower and in which we can apply specialized abilities and have funds to carry it out. North Carolina is an important shellfish state.

We work with the growers and operators of Migrant Labor Camps. Those of you who are familiar with them in years past know that persons oriented to sanitation would quickly see much to be done. Here too we find that when sanitation is improved the condition of the workers is improved and so is the field efficiency.

We looked cooperatively into school water supplies. When you think of perhaps one million youngsters in North Carolina's public schools; when you consider how seldom one sees a newspaper article about food borne illness; (and I praise the press for their quickness in picking up food-borne illness) consider how infrequently, indeed rarely, one sees food-borne illness school-related.

Think of one million children, think of the meals served per year, think of the many possibilities for error and then think of our almost spotless record in the serving of school meals.

Indeed, when there are food-borne outbreaks in North Carolina, one usually sees them outside of the regular food services whether these be commercial or in schools.

In the follow-up of the school water supply, 112 were looked into this past year as were their sewage systems, and where improvement and correction was necessary this was done.

We have worked a long time in the field of insect and rodent control. You recognize that there are many diseases of a nature which were once borne to man and many still occur among us which come out of the insect world either from animal by insect to man, from man to man by insect or from the insect itself, perhaps to man.

The most striking of these is the Salt-Marsh Mosquito Control Program. Last year nearly 10,000 acres of marsh land was explored and more than 700,000 feet of ditching done. These problems came out of Hurricane Hazel and other experiences which had to do with the disturbance of our natural topography.

These comments, then, have involved the Seven Divisions. Let me say a few other things.

In particular, the State Board of Health has relationship to the Post Mortem Medicolegal Examination System. It is not yet a state-wide system of medical examination or medical legal examination. This field you had well discussed by Dr. Foard on Monday of this week. Some 13 counties are in this system, have medical examiners and these of course are agents of government who investigate violent or sudden death. In cooperation with this system there is in Chapel Hill a toxicology laboratory which serves as reference for them.

A final word now. Our great problems quite clearly now before us are those in Medicare. We are all in the field of revolution, whether this be in care, in cure, in prevention or in rehabilitation.

I find that we are working together. We have worked together closely in the past and it is appreciated by those of us who work in the public health field. And, of course, we can either exist and we certainly cannot advance without your support. We move forward only at your pleasure.

Let me say that our work when it is made successful is made so by the staff who serve, the State Board of Health which sets the policy and by the health professionals of the state, particularly the interested physicians of the state, who make North Carolina a delightful place from the health standpoint.

I thank the Board for the action it took today in making me Director and Burns Jones, Assistant Director. And I thank those members of the audience who have supported me in the years that I have been in North Carolina, whether I have been in Epidemiology or in this present post, for making it such an attractive place for me and my family. Let me also thank you for being so attentive.

STATE HEALTH DIRECTOR

The State Health Director has the overall direction of more than thirty public health programs as a major administrative responsibility. The work of the State Board administrative staff is grouped into seven divisions. The specialized character of the various programs and the highly trained personnel in charge of each combine to increase the demands made upon the State Health Director; while, at the same time, these highly competent specialists in each division are most dependable in their planning and working.

It is necessary for the State Health Director to keep abreast of progress in medicine and public health and to guide North Carolina's public health program in a direction which incorporates the best confirmed scientific advances in ways consistent with the public health philosophy. Acquaintance with Federal programs which affect related programs in this State is a continuing necessity. This involves much liaison work with Federal officials. He works with the U. S. Public Health Service and other Federal agencies which support in whole or in part some twenty-eight public health programs in this State.

The State Health Director needs to maintain a wide acquaintance with the work of local health departments through personal and staff consultation visits and a review of the flow of reports coming in from and out to all sections of the State. This necessitates frequent travel engagements and many conferences with local health directors and with State staff.

Legislation enacted by the 1963 General Assembly placed upon the State Board of Health the entirely new responsibility for setting standards for breath testing devices to determine alcohol blood levels used in cases involving suspected drinking drivers and the certification of personnel to administer these tests.

The State responsibilities for the administration of Medicare have been placed upon the State Board of Health within the past year.

The State Health Director has served on many State, and on some National committees and commissions during the past biennium. The State Health Director is currently serving as Chairman of the Health Advisory Committee of the Appalachian Regional Commission, member of the Neurological and Sensory Disease Control Program Project Review Panel for Vision of the Public Health Service, member of the Communicable Disease Center Advisory Committee, and as president of the State Legislative Council.

DIVISION REPORTS

ADMINISTRATIVE SERVICES DIVISION

July 1, 1964—June 30, 1966

The organizational structure of the Administrative Services Division remained the same with the exception of the transfer of the Emergency Health Preparedness Section to the Local Health Division. The Division is now composed of Budget and Accounting, Personnel, Public Relations, Film Library, Public Health Library, Supply and Service, and Central Files.

The Director coordinates the activities of the above sections with the requirements of all Divisions of the Department; and in addition, assists the State Health Director, the Assistant State Health Director, and Division Directors in developing and implementing the administrative functions of the Agency. This includes procedures and methods and activities involving legal implications. Various studies and surveys have been under consideration by the Division during this period with objectives of improving efficiency and establishing better controls.

Mr. Ben Eaton succeeded Mr. Charles L. Harper in September, 1964, as Director. Mr. Harper resigned to accept employment elsewhere.

Significant developments during the biennium included the following:

Budget and Accounting

The scope and volume of activity of this section increased materially during the past year with the addition of several new programs and special projects, the vast increase in the requirement for fiscal reports and supplemental data, and the increase in appropriations.

The total funds budgeted and accounted for, during the fiscal year 1965-66, was $10,962,734. This represented an increase of $2,249,610, or 25.8% over fiscal year 1964-65.

BIENNIAL REPORT

JULY 1, 1964 THROUGH JUNE 30, 1966

The specific amounts available for the current biennium as compared with the amounts available for the preceding biennium are as follows:

	Total All Funds	State Appropriation	Federal Funds	Departmental Receipts	Local Appropriations
1964-66	$36,585,102	9,012,689	$10,006,931	$ 656,238	$16,909,244
1962-64	31,308,403	8,059,387	7,399,525	534,531	15,314,960
Total Increase	$ 5,276,699	$ 953,302	$ 2,607,406	$ 121,707	$ 1,594,284
% Increase	16.85%	11.83%	35.24%	22.77%	10.41%

BIENNIAL BUDGET

Source of Funds	Total For All Purposes	For Other Purposes	For Local Health Departments: Total For Local Units	Regular Appropriations	Special Project Grants
Fiscal Year Ending June 30, 1965:					
State Appropriation	$ 4,235,763	$ 2,575,383	$ 1,660,380	$ 1,563,976	$ 96,404
Federal Funds	4,180,922	3,705,517	475,405	200,000	275,405
Departmental Receipts	296,439	296,439	—	—	—
Local Appropriations	8,026,990	—	8,026,990	8,026,990	—
Fiscal Year Totals	16,740,114	6,577,339	10,162,775	9,790,966	371,809
Fiscal Year Ending June 30, 1966:					
State Appropriation	4,776,926	2,999,901	1,777,025	1,596,400	180,625
Federal Funds	5,826,009	4,938,823	887,186	120,000	767,186
Departmental Receipts	359,799	359,799	—	—	—
Local Appropriations	8,882,254	—	8,882,254	8,882,254	—
Fiscal Year Totals	19,844,988	8,298,523	11,546,465	10,598,654	947,811
Totals For The Biennium	$36,585,102	$14,875,862	$21,709,240	$20,389,620	$ 1,319,620
Number of Purchase Orders Written			2,652		
Number of Vouchers Written			23,904		

Central Files

The Central Files operations continued to expand and adjust with the increasing and changing program activities. The centralized control of records establishes the responsibility for recording, protecting, and filing the official records and their finding when needed. It controls the systematic retirement of records to storage and the disposal of those no longer of administrative, historical, research or legal value.

During this period, 553,013 records were received for filing, and 59,438 searches for material and information were made. Emphasis was given to improving the accuracy of operations and to assisting in working out record keeping problems with staff generally. The vast yearly increases in the volume of records and the attendant problems of filing and storage necessitates a survey of the system which was installed in 1936. This survey is under way and it is contemplated that the latest methods, procedures, and equipment will be the result.

Supply and Service

This Section continued to reflect the service requirements from newly added programs and expanding activities of existing programs. New duplicating equipment has been added and some obsolete equipment has been replaced. Adequate space has become an increasingly serious problem.

The following volume of forms and materials printed and distributed indicates the workload:

	1964-66
Multilith copies reproduced	10,820,053
Number of new forms	3,718
Number of copies folded	504,480
Number of copies cut on machine	3,441,100
Copies padded	2,142,402
Educational materials and forms distributed	5,193,945

Film Library

During this report period, there has been a vast increase in film utilization and distribution over the previous report period. Each year, the Library continues to receive requests from many new borrowers as well as increased requests from the many old borrowers who have been using our services for some time.

The Library purchased a total of 431 new films at a cost of $49,336.48. A total of 53 films were replaced. There were a total of 64 films repaired during this report period at a cost of $1,298.20. The number of films repaired continued to decrease due primarily to the use of electronic inspection equipment which detects all film damage.

The Library distributed a total of 87,160 films in 78,326 individual shipments. The correspondence received increased from 20,178 to 25,839. The number of requests we were forced to turn down more than doubled from 3,021 to 7,161.

Ten thousand film catalogues were printed and distributed during this period.

In May, 1966, the Library was moved from its third floor location in the Health Building to a new building on the corner of Lane and Dawson Streets, which provided a substantial increase in space.

The Library received a total of 4,497 visitors during this report period who were seeking service.

The Library used a total of $6,347.40 in postage in distributing the films and catalogues.

Public Relations

During the biennium, citizens of this State have shown a growing appreciation of public health. Newspaper articles gathered weekly from the 100 counties attest to this interest. Many conversations with leaders in a variety of fields tell this same story.

The public health programs are geared to the health needs of the people. Many available means have been used to bring the benefits of health programs to the attention of the people who need them.

Through newspaper stories, radio and television programs, the activities and services of the local and State boards of health have been presented.

The Public Relations Officer has arranged for television and radio programs and has spoken at numerous meetings emphasizing public health. He has represented the State Board at a number of statewide conferences and some national meetings. He has also given frequent counsel to State and local staff members in the area of public relations. The Public Relations Office produces a bi-weekly Newsletter for State Board staff interest and use, which has attracted favorable comment.

The Public Relations Office gathered, organized, and distributed legislative information and served in a liaison capacity during the session of the 1965

General Assembly. A publication showing the progress being made in health and health related legislation was compiled and distributed weekly to public health personnel and a final summary prepared.

As Editor of THE HEALTH BULLETIN, the monthly official State Board publication now in its 81st year, he has the counsel of an Editorial Board representing many facets of the public health picture. This publication has sought to present subjects of importance to public health in a manner and language interesting to the general public. Its present mailing list numbers 47,000.

Medical-Public Health Library

Continued interest in the Medical-Public Health Library was demonstrated by the figures listed below. It is believed that this extensive use of the Library testifies to its value in supplementing the effectiveness of the various programs of the Department.

	1962-64	1964-66	Increase
Visits made to the Library	14,048	15,600	1,012
Journals borrowed	3,504	3,625	121
Books borrowed	12,649	13,350	701
Books added by the Library	315	340	25

Personnel

The Personnel Section has experienced tremendous activity during this period. Many staff positions have been added, both State and local. Many additional positions were required by new programs, which are reported elsewhere. Some of the more important changes are as follows:

1. New insurance plans were made available to State Employees, and a substantial number purchased, and many claims have been paid.
2. A new Personnel Information Bulletin called "For Your Personnel Notebook" was started and was well received.
3. A greater number of employees retired than in any other period in the history of the Department.
4. Personnel policies, such as the "Administration of Merit Increments," were committed to writing. Plans are under way for an extension of this method of formalizing our procedures and informing our employees.

As of July 1, 1966, the personnel of the State Board of Health numbered 451; and for Local Health Departments, there were 1,501.

DIVISION of EPIDEMIOLOGY

July 1, 1964—June 30, 1966

During the biennium ending June 30, 1966, several structural changes, made by administrative action, occurred within the Division of Epidemiology. On September 1, 1964, Dr. Fred T. Foard, Division Director since 1952, resigned to accept a less demanding, part-time position as Consultant to the Division. Dr. Foard, one of the nation's great public health leaders, gave distinguished and dynamic direction to the Division for over thirteen years. He was succeeded by Dr. Martin P. Hines, Chief of the Veterinary Public Health Section. Administrative changes within the Sections will be discussed later in this report.

The formal organization of the Division of Epidemiology during the biennial period continued to show the following seven Sections, as in previous years: Communicable Disease Control, Public Health Statistics, Venereal Disease Control, Tuberculosis Control, Veterinary Public Health, Accident Prevention, and Occupational Health-Radiation Protection. The Division has been most fortunate in being able to continue the operation of all of its Sections with well trained, experienced, highly qualified personnel who work harmoniously with employees of this and other Divisions.

The position of Chief, Communicable Disease Control Section, was filled on July 1, 1965 by Dr. Ronald H. Levine, who formerly served as Field Epidemiologist from August 1963. Under Dr. Levine's able leadership, much progress has been made in the control of communicable diseases during the biennium. The Division was fortunate to, again, have a well qualified field epidemiologist assigned from the Communicable Disease Center to replace Dr. Levine. Dr. Joseph Kinzie succeeded Dr. Levine on August 1, 1965. The assignment of such well qualified E. I. S. officers to North Carolina by the U. S. Public Health Service continues to be of immeasurable value to the State Board of Health and to the people of the State.

The **Immunization Activity Program** operates as a part of the Communicable Disease Control Section, with federal grant funds of approximately $300,000 per year. Established in September 1963, the program is coordinated under the able leadership of Mr. Henry Woodard and is involved in the intensification and expansion of present immunization activities, educational and information campaigns directed toward the general public, and the purchase of live measles vaccine for preschool children. Outstanding examples of activity during the biennium have been the organization of a state-wide birth certificate follow-up immunization program and the coordination of several mass measles immunization campaigns.

Other accomplishments in the **Communicable Disease Control Section** were: The investigation of a large epizootic of eastern encephalitis in horses, which provided a greater understanding of the mode of spread to both horses and

man; a study of the incidence of complications following smallpox vaccination; the revision of the health certificate for foodhandlers; and a tetanus immunization booth at the State Fair in cooperation with the State Medical Society.

The **Public Health Statistics Section** performs three vital functions: The collection of vital records, data processing, and statistical services. Requests for these services are constantly increasing, and plans are under way to utilize computers in some work areas. In 1965, with the cooperation of the State Department of Archives and History, a microfilm program was begun involving all births registered prior to 1945. The number of live births continued to decline in 1966 and may total less than 90,000 for the year. Mr. Glenn Flinchum, an experienced and well qualified statistician, continues to serve as Section Chief.

The **Venereal Disease Control Section**, supported largely by federal funds, has 33 employees assigned by the U. S. Public Health Service and detailed to local health departments to assist in venereal disease control activities. The excellent work of these men, under the direction of Mr. James Hicks, Section Chief, in cooperation with the local health departments and private physicians, has halted the yearly rise in the incidence of syphilis, through rapid syphilis epidemiology and prophylactic treatment of non-infected contacts. Venereal disease education on a continuing basis was included in the curricula of schools during the biennium and now is presented to 130,000 students or approximately 25 per cent of the State's total 7-12 grade population. A venereal disease information and education specialist was assigned in March 1966 by the U. S. Public Health Service to assist in establishing more effective programs in mass communications and community awareness.

Considerable changes occurred during the biennium in the **Tuberculosis Control Section.** Reorganization of the program was accomplished to follow the guidelines of the U. S. Public Health Service Surgeon General's Task Force Report. Priority in the tuberculosis control program is to provide services to unhospitalized patients, their contacts, suspects, tuberculin reactors, and other so-called "high risk" groups. The use of mobile x-ray units for mass surveys has been discontinued. A tuberculosis special project grant from the U. S. Public Health Service has totaled $214,000 in 1966, has enabled the State Board of Health to support 30 full-time positions, primarily nurses, in 17 local health departments. Mr. Frank Berry was assigned as Project Coordinator in September 1964 and is doing an outstanding job of administering this special project. Four seminars were sponsored by the Section during the biennium for local health department staff. On June 30, 1966, Dr. William A. Smith retired as Section Chief and was succeeded by Dr. Roy V. Berry. Dr. Smith had given able leadership to this Section since 1948.

The **Occupational Health-Radiation Protection Section** has expanded during the biennium under the experienced direction of Dr. William L. Wilson, Section Chief. Several vacant positions have been filled with highly qualified persons. Direct assistance to the University of North Carolina School of Medicine and Public Health resulted in the establishment of a full-time occupational med-

ical program. The Radiation Protection Program was stabilized and its standards improved, which has guaranteed increasing benefits from the expanding uses of ionizing radiation.

During the biennium, the **Accident Prevention Section** continued to function very effectively under its able Section Chief, Miss Nettie Day. Special emphasis was given to a follow-up study of all drownings in the State and special efforts were made to promote traffic safety.

The position of Chief, **Veterinary Public Health Section,** has been vacant since September 1, 1964. The Division Director, however, has served as Consultant in the area of animal diseases transmissible to man. Dr. John I. Freeman will become Section Chief on August 1, 1966.

There were no major outbreaks of communicable diseases during this biennium.

Detailed reports of the Sections operating within the Division of Epidemiology, including the special Immunization Activity Program, follow:

Communicable Disease Control Section

The activities of the Communicable Disease Control Section include:

1. Tabulation of the cases of reportable communicable diseases
3. Analysis, at frequent intervals, of the data obtained
3. Preparation and publication of weekly, monthly, and annual reports of communicable diseases in North Carolina.
4. Epidemiologic assistance and consultation where problems in communicable disease control exist.
5. Education in the area of infectious diseases, including lectures to local medical societies, hospital staffs, nursing in-service programs, etc.
6. Field investigations of reportable communicable diseases.

The record of the past biennium continues to demonstrate the effect of increasing utilization of active immunizing agents as a method of communicable disease control. Most of those diseases for which active immunization is available continue to show declining morbidity rates. Progress in the isolation and identification of viral agents has led to the classification of new disease entities and to the hope of their eventual prevention by active immunization.

Possibly the most significant development during the biennium was the complete absence of **poliomyelitis** in North Carolina during 1965 and the first half of 1966. The eradication of poliomyelitis in North Carolina can be credited to the use of poliomyelitis vaccine throughout the state. Of great significance was the beginning of a state-wide **measles** immunization program. Mass measles campaigns were carried out in several counties and maintenance immunization of infants with measles vaccine was initiated in all counties.

Also notable were the almost total absence of diphtheria, the continuing decline in the incidence of whooping cough, and the gradual decline in the incidence of tetanus. We await with great anticipation the development of vaccines for mumps, rubella and varicella.

North Carolina continues to experience large numbers of cases of Rocky Mountain spotted fever. Great emphasis is placed on education of the public and the medical community as a control measure but with limited success. It may well be that greater utilization of the spotted fever vaccine will be necessary in order to reduce the threat of this disease.

The number of typhoid fever cases has declined steadily during the biennium while diseases due to the other Salmonella organisms have risen. As long as sub-standard housing conditions with impure water and inadequate sewage disposal facilities remain in some sections of the state, the so-called "filth-borne" diseases will continue to plague us.

The two winters of the biennium were notable for the relative absence of influenza. Although focal outbreaks were reported throughout the state, no large-scale epidemics, such as the Asian influenza outbreak of 1962-1963, were experienced.

We have now experienced a 10-year period without a single case of human rabies, an achievement of which we can be especially proud since wildlife rabies is on the upsurge in this area of the country.

Given below is a table presenting data relative to the number of cases of the major communicable diseases in North Carolina for the years 1964-1965 and January through June 1966:

NORTH CAROLINA—REPORTED CASES BY ONSET

Disease	Jan.-Dec. 1964	Jan.-Dec. 1965	Jan.-June 1966
Diphtheria	3	3	1
Encephalitis	38	28	29
Hepatitis	514	392	210
Malaria	6	8	6
Measles	1,313	379	368
Meningococcus Infections	101	121	95
Poliomyelitis	9	0	0
Rocky Mountain Spotted Fever	42	41	10
Tularemia	9	8	2
Typhoid Fever	16	13	3
Undulant Fever (Brucellosis)	3	5	2
Whooping Cough	142	78	22
Tetanus	11	10	1

Immunization Activity Program (Federal Project)

The purpose of this program is to coordinate federal, state and local health department activities and cooperate with private medicine in an effort to secure adequate immunization against diphtheria, whooping cough, tetanus, poliomyelitis, and smallpox for the population of North Carolina, especially preschool-age children.

In reviewing data obtained from the random sampling surveys conducted in five counties in North Carolina in 1964, it was realized that a concerted effort must be made to make parents of newborns aware of the need for early adequate immunization of the infant.

Results of these same surveys showed that special attention must be given to that group of people that do not readily respond to non-personal contact, e.g., television, radio, newspaper, and letters. It was further determined that any program designed to reach these groups, though conducted by the State Board of Health, must, in part, be carried on at the local level to be workable.

With this knowledge, a birth certificate follow-up program was designed to reach the parents of all newborns in North Carolina. First contact is made through a mail-out from the State Board of Health. Those not responding to this mail-out are then followed at the local level through record search, physician's office, and telephone. As a final effort, a personal visit is made to the parents. To carry out this program at the local level, 79 health departments have employed 84 part-time employees to visit these parents and motivate them to have their children immunized. This visitation program is carried out even though in a lesser degree in nearly all the remaining health departments, utilizing public health nurses.

In an effort to reach the parents of other preschool-age children a mail-out has been initiated. This will involve the mailing of approximately 250,000 cards to parents of children in this age group.

Where possible, the Immunization Activity Program assists local health departments or other organized health agencies in mass or intensive immunization programs such as mass measles campaigns.

Because of the recent shown effectiveness of live measles vaccine, and the non-availability of this vaccine through other sources, the Immunization Activity Program has made available 100,000 doses of this vaccine for calendar year 1966. This vaccine is being distributed to all health departments for the immunization against measles of any preschool-age child.

An integral part of all phases of the Immunization Activity Program is its public information program. The object of this activity is to make the entire population of North Carolina aware of the need for adequate immunization. Methods which have been utilized are television programs and spots, radio spots, newspaper articles, presentations to various group meetings, mail-outs, and pamphlets.

Venereal Disease Control Section

The venereal diseases continued to be reported at an alarming rate during the biennium, with gonorrhea and syphilis remaining the two highest reported diseases in the state. It is encouraging, however, that the recent trend of continuing yearly increases in the reporting of infectious syphilis has been reversed. This reversal is particularly important in view of the fact that there has been significant progress made during the biennium in the techniques used to find and report cases.

The present activities of personnel assigned to the Venereal Disease Control Section are directed primarily toward the control of syphilis, and, along with other states, represent a program designed to eradicate syphilis by 1972. Gonorrhea, while occurring at a rate over ten times higher than syphilis, does not constitute as great a threat to the individual's health. In addition, all the tools necessary to eradicate syphilis are available. Some of these same tools, such as the blood test, are not available to fight gonorrhea.

Since 1957, infectious syphilis has increased more than 400 per cent in North Carolina. This increase was caused by a number of things, including a lack of public and financial support. After experiencing a 46 per cent increase in infectious syphilis in fiscal year 1963 over fiscal year 1962, North Carolina, during fiscal years 1964 and 1965, showed a sharp reduction in reported infectious syphilis when the percentage increase over the previous year was reduced to 9.1 per cent and 9.5 per cent respectively. During fiscal year 1966, North Carolina experienced the first yearly decrease, 4.1 per cent, in reported infectious syphilis since 1959.

Placing these figures in proper perspective, it is noted that North Carolina is experiencing a leveling-off period of reported infectious syphilis while continuing to accelerate the case-finding and other phases of the control program.

At the same time, the continued downward trend in the reporting of all other stages of syphilis suggests that as more and more cases are being detected in the infectious stage, fewer are making the transition to latent stages to be discovered and reported at a later date.

Through the intensive application of epidemiologic techniques such as the interview of infective patients, the rapid investigation, examination and treatment of contacts, program representatives performed successful epidemiology on approximately 80 per cent of the cases. This rate places North Carolina's epidemiologic effectiveness among the nation's highest.

In an effort to increase the private physician's awareness of the venereal disease problem and to encourage his participation in the eradication effort, program representatives made over 3,000 visits to physicians in private practice during the biennium. The offer of other epidemiologic services, including confidential case-finding and mobile darkfield microscopy, was an important part of these visits. In 23 selected counties, where infectious syphilis had not been reported in the past two years, program representatives personally visited every physician.

These field staff members also assisted the laboratories in North Carolina in establishing routine and direct bi-weekly reporting of all reactive tests which indicate the possibility of syphilis. These efforts resulted in a more than 100 per cent increase during the last half of the biennium in the number of such tests reported. Follow-up activity was immediately initiated on all reactive reports.

Venereal disease education on a continuing basis was included in the curricula of 39 school systems. With this type of instruction, we are presently reaching more than 130,000 students or approximately 25 per cent of the

state's total 7-12 grade population. Other education programs, including lectures, films and the distribution of pamphlets, brochures and other informational materials were presented by program representatives to specific groups and the general public.

The Venereal Disease Control Section has participated in several studies during the biennium. One study indicated that North Carolina's control program rates among the highest in the nation in the percentage of not infected contacts that receive prophylactic treatment. This control aid is one of the most effective measures for preventing the spread of syphilis.

Another special study in cooperation with the Venereal Disease Branch of the U. S. Public Health Service was conducted to determine the source of the patient's knowledge about venereal diseases and the factors which motivated the patient to seek medical attention.

In a cooperative agreement with the U. S. Public Health Service, 74 program representatives received training in the methods of venereal disease control while participating in the syphilis eradication program.

The total expenditure for the Venereal Disease Control Program for the 1964-1966 biennium was $235,190. Of this amount, the state contributed $91,536 and the balance of $143,654 was supplied by Federal funds. Not included in this amount was direct Federal aid, which provided 33 Public Health Service assignees to North Carolina each fiscal year of the biennium.

Public Health Statistics Section

The Public Health Statistics Section includes the combined activities of vital records registration, data processing, and statistical services. The Section carries out the statutory duties of the State Board of Health in registering, certifying and preserving all records of births, deaths, fetal deaths, marriages, and divorces which occur in the State of North Carolina. The number of these vital records which has been indexed and permanently filed with the State Board of Health totals approximately 7,000,000.

While the total number of births recorded decreased during this biennium, there was an increase in the numbers of deaths, marriages and divorces recorded. The number of certifications issued continued to show an annual increase of about 10 per cent, as did the money receipts.

The Data Processing Unit continued to provide tabulating services to approximately 15 different health programs, averaging over 1,400 reports and listings per year. This work is also showing a gradual increase in volume each year.

An important function of this Section is the classifying and coding of cause of death on death certificates, the coding of cancer morbidity reports and coding of special maternity study diagnoses. The unit annually classifies more than 40,000 death certificates, over 10,000 cancer morbidity reports and makes special monthly follow-ups of maternal deaths, drownings, drug poisonings,

deaths associated with anesthesia or operations, deaths to aliens and deaths of physicians and dentists. The volume of this work has increased during the past two years.

To meet the increasing demand for nosologists, some staff members' duties were changed and an on-the-job training program was begun which has increased our Nosology staff by 60 per cent. This change together with other improvements in our system of processing certificates has resulted in greater efficiency of the unit. The unit is now doing more work with less people.

Another important function of the Section is to provide useful vital statistics information to local health directors, program heads within the State Board of Health, and other consumers on a regular basis. Quarterly reports containing provisional figures are followed by more comprehensive official annual reports which include data on morbidity, births, deaths, marriages, and divorces of North Carolina residents. Population estimates and breakdowns of vital events by such characteristics as color, sex, age, cause of death, and other important variables are also included in the regular reports. A continuing effort to improve the content and timeliness of these reports is maintained.

The Section participates in special studies and research projects in cooperation with program heads, other agencies, and institutions. Typical examples are **Nursing Time Study** conducted in 17 counties during the summer and fall of 1965, and a study of **Changes in Fertility Patterns** in the white and non-white population of North Carolina (this study is being made in cooperation with the School of Public Health at the University of North Carolina).

Accident Prevention Section

Accidents of all types are a leading cause of mortality, injury, and disability in North Carolina. According to provisional data, in 1965 accidents ranked fourth among the leading causes of death in the state, causing 3,178 deaths. Of the total number, 1,601 deaths resulted from motor vehicle accidents; 833 deaths were caused by accidents in the home and on the farm; the remaining 744 deaths were caused by accidents occurring in public places, occupational pursuits, and non-motor vehicle transportation. In the instance of motor vehicle accidents, the death rate per 100,000 population for 1965 was greater than that for 1964. The home-farm accident death rate was slightly less in 1965 than in 1964. One type of accidental death, drowning, increased strikingly during 1964 and 1965. The leading types of home accident deaths were fire and associated causes and falls. The two age groups which had the highest rates of home and farm accident deaths were young children (aged one through four years) and older adults (65 years and over). Since individuals in these age groups spend a proportionately greater share of their time in the home, their unfavorable experience in this type of accident is easily understood.

Statistical data regarding accidental injury in the home and on the farm are not available for the whole state since there is no single mechanism for the reporting of non-fatal accidental injuries occurring in these places. Reports from two poison control centers in the state give some indication of the prob-

lem of accidental poisoning in the state, but this does not give a complete picture; nearly 2,000 cases were reported by the two centers during the biennium. Estimates based on nationwide studies would place the number accidentally injured in the home and on the farm in North Carolina at a minimum of 110,000 persons annually with the maximum reaching a total of 400,000 individuals per year.

During the biennium, the Section has worked with health departments in 40 counties on accident prevention activities. These activities with local health departments have varied from assistance in planning and conducting staff education programs in accident control to help in planning and carrying out special safety projects.

The Section has assisted 45 other agencies and organizations (state and local) in developing or carrying out accident prevention activities. Such organizations have been schools, agricultural extension service, parent-teacher associations, boy and girl scout organizations, educational institutions, safety councils, men and women civic clubs, etc.

During the biennium, the Robeson County Fire and Burn Injury Prevention Project was completed. The teaching guide which was developed for use in this project has been made available to interested individuals and health departments in the state and outside.

The State Board of Health, through the Section, participated in the North Carolina Ambulance Service Study, a research project conducted by the North Carolina Hospital Association Education and Research Foundation in cooperation with the Institute of Government and the Department of Hospital Administration of the University of North Carolina Medical School. The final report was made during the biennium. A bill giving certain responsibilities concerning ambulance service to the State Board of Health was introduced in the 1965 General Assembly. Although the bill did not pass, the Section and others at the State Board of Health were involved in many activities concerning it.

The Section continued its active participation in the efforts of the North Carolina Rural Safety Council. The Council's major activities are sponsoring a rural safety conference annually and sponsoring National Farm Safety Week. The Section participated actively in both projects during each year of the biennium.

In cooperation with the Department of Labor, an outline of an off-the-job safety program for employees in the fertilizer industries was developed and presented at the 1965 Safety Supervisors Training School.

During both years of the biennium, the Section has participated actively in the migrant health programs, both in training activities in accident prevention for the staff of the migrant programs and in providing educational material for use in safety programs with the migrants.

The Section coordinated the Home Safety Program Inventory in two communities in the state in Spring 1966—Charlotte and Raleigh.

During the biennium, the Section began to study ways that health workers may function in traffic safety programs. One Driver Improvement Course was offered to State Board of Health staff. A conference of local health directors was held to discuss the role of local health departments in traffic safety programs. Out of this conference came the idea for a pilot program in a local health department. A tentative proposal for such a program has been submitted to the Division of Accident Prevention, U. S. Public Health Service.

The Section has continued its active cooperation with the Graduate Program in Accident Control of the Department of Public Health, University of North Carolina School of Public Health. The Section Chief has continued to serve on the Advisory Committee to the Program, to conduct seminars for public health administration students, and to supervise field training experiences for accident control students. During the biennium, three students received the field training in North Carolina.

A study of all drownings occurring in North Carolina from May 1, 1965 through June 30, 1966 was initiated during the biennium. The study includes a follow-up investigation of all drownings reported. Early in fiscal year 1967 the report of the study will be made.

Occupational Health and Radiation Protection Section

Due to space limitation, biennial changes and trends cannot be amplified. Understanding program activities of occupational disease studies, occupational health protection, and radiation protection reported here requires detailed attention to the Fortieth Biennial Report (July 1, 1962-June 30, 1964) in order to appreciate details of effectiveness or evidences of deficiencies. Frustrations have been due to insufficient personnel despite available funds and approved positions which have continued unoccupied.

Personnel assignments continue. Eighteen full-time positions, two of them vacant, are supported by 23 approved and highly qualified professional consultants. A Radiation Protection Inspector (November 1, 1964) and Occupational Health Nursing Consultant (September 15, 1965) joined the Section. Six staff members have attended 19 scheduled training courses of one week or longer, conducted by the U. S. Public Health Service, Atomic Energy Commission, and our own universities. Concurrently, the staff has taught many State and local personnel, including 76 graduate students at the School of Public Health and 70 medical students at the University of North Carolina, Chapel Hill. Public educational activities have paralleled the issuance of 32 pertinent informational bulletins and advisory guides which have been distributed to local health departments, employers, State agencies, physicians and other professions and organizations throughout the state, county commissioners, city managers, and chambers of commerce.

Industrial Hygiene Unit. Comprehensive studies of occupational diseases continued: Of 623 silicosis cases diagnosed to date, with pertinent data summarized before the Pennsylvania Governor's Conference on Pneumonoconiosis, followed by 1965 Pennsylvania legislation establishing a program patterned like North Carolina's; a special study jointly with the U. S. Public Health Service,

encouraged by the Asbestos Textile Institute and with full cooperation by five North Carolina plant managements, analyzing work environments and the employees' personal health related to asbestos hazards during employment; relationships between employment and increasing pulmonary emphysema deaths, now 21 times greater than in 1950. Greatly expanded reports of these and other related activities are available upon request to the State Board of Health.

Occupational Health Protection. Pertinent statistical data are reported elsewhere. North Carolina State University was assisted in development of two annual Industrial Ventilation Conferences attended by nearly 200 persons from North Carolina and the states from New England to Texas. At their requests, the North Carolina Association of County Commissioners and the North Carolina League of Municipalities were served by instruction courses, advisory guidance, and consultations concerning occupational health. The 1965 County Yearbook (Commissioners) contained a first-time public health promotional article; with U. S. Atomic Energy Commission and State Highway Patrol assistance, the five largest North Carolina cities' managers were furnished seminars, attended by 162 key officials, on radiation protection, controls, and necessary future city and county personnel performing activities in response to emergencies; similar guidance was furnished to the Association of City Managers' annual meeting.

The North Carolina Department of Labor was furnished occupational health guidance for the revised North Carolina Safety and Health Standards, promulgated and enforced by the Department of Labor. An emergency medical service for the 1965 General Assembly was organized and administered. Numerous Federal and State agencies, the Annual National Safety Congress at Chicago, the Southern Interstate Nuclear Board, the Association of State and Territorial Health Officers, to mention only a few, were served.

State Radiation Protection Program. Many expected problems did not deter the establishment of the statutory State Radiation Protection Program August 1, 1964 involving: Agreement with the U. S. Atomic Energy Commission to license and regulate radioactive materials previously AEC-controlled; issuance of North Carolina Regulations for Protection Against Radiation; licensing and registration of radiation sources in the State; improvement and perfection of the State Radiological Emergency Team and its guidance handbook; half-day conferences set up by City Managers of our five largest cities for key city and county administrative heads to familiarize all of them with their simplified methods of response to radiation accidents; perfection of environmental surveillance for fall-out radiation through the State; provision of the most complete laboratory counting and analytical assay capabilities for radioactive materials to be found in the State.

A total of 473 licenses were issued, 152 of which were new, 113 replaced AEC licenses, 174 amended existing licenses, and 34 licenses terminated. Starting with 164 licenses transferred from the U. S. Atomic Energy Commission, the number has increased some 70 per cent to 279, not counting 13 out-of-state. Registrants of x-ray equipment totaling 1,848 as well as the radioactive

material licensees, have been served through advisory guidance and assistance, health physics and engineering consultations, and numerous technical reference materials. Of 436 x-ray machines inspected, 56 per cent were in noncompliance; of 120 radioactive material licenses, 81 per cent were in noncompliance. It would be difficult to furnish greater evidence of the widespread need for this program, of the wisdom of the General Assembly in establishing it for the protection of the public against unnecessary or hazardous radiation. The State's readiness to cope with radiological emergency, the program's electronic equipment means, and the capabilities for keeping equipment functional and adequate cannot be excelled.

OCCUPATIONAL DISEASE/HEALTH PROTECTION STUDIES

Activity	Total	Dusty Trades(a)	Non-Dusty Trades(b)	Local Health Depts.	Others
Engineering Surveys	373	251	122	—	—
Field Determinations	715	277	438	—	—
Laboratory Samples	1,895	1,452	443	—	—
Medical Visits/Assistance	104	4	17	32	51
Nursing Consultant Activities	123	—	64	15	44
Chest X-Ray Films Made	25,009	9,999	15,010	—	—
(Number of Plants)	344	301	43	—	—
Chest X-Ray Films from Other Sources	1,853	—	—	—	—
Total Chest X-Ray Films Processed	26,862	—	—	—	—
Follow-up Studies	973	—	—	—	—
Sanatorium	(87)	—	—	—	—
Personal Physician	(541)	—	—	—	—
Clinic	(30)	—	—	—	—
Health Department	(315)	—	—	—	—
X-Ray Film Pathology Reported	340	—	—	—	—
New Silicosis	19	—	—	—	—
Stage I	(17)	—	—	—	—
Stage II	(2)	—	—	—	—
New Asbestosis	5	—	—	—	—
Stage I	(4)	—	—	—	—
Stage II	(1)	—	—	—	—
Actual/Suspected Tuberculosis	49	—	—	—	—
Heart	80	—	—	—	—
Pneumonitis	24	—	—	—	—
Tumors (malignant)	27	—	—	—	—
Emphysema	9	—	—	—	—
Pleurisy	15	—	—	—	—
Others/Undetermined	152	—	—	—	—
Work Cards Issued	12,311	12,311			
Advisory Medical Committee Reports to Industrial Commission	53	53			
Case Hearings	43	43			
Court Hearings	7	7			

NOTES: (a) Industrial Hygiene Unit
(b) Occupational Health Section

Conclusions. Despite the valuable and effective performances reported here, the State Board of Health cannot adequately serve the maximum number of the State's employers to reduce health causes of their annually increasing occupational disease and medical costs. The costs have trebled since 1960! As reported biennially for six years, nearly all of this is preventable. Only asbestosis and silicosis have had fair attention, adequate budget, and study, so far as occupational diseases are concerned. To achieve required radiation inspections other occupational surveillance has diminished 34 per cent. Despite total such surveillance increase of 38 per cent during this biennium, less than 20 per cent health protection effectiveness is available to devote to over 99 per cent of North Carolina's employers and employees.

Repeating the justified admonitions of the last two Board Biennial Reports, informed and critical response to all past biennial summations has never been more essential. In 1962 and again in 1964 it was accurately reported, "Certain industrial noises, ionizing radiation, chemical intoxications, can be expected to create new and more hazards. Increasing industrialization creates not only more volume of but more varied responsibilities, more demands for field visits and recommendations to employers. We can meet the challenges by increased study, research, training of our personnel, and by cooperation with Federal and our other State agencies and with our privately practicing professions, given the means to do so." Never before has occupational health action controlled so much the potential profits to our citizens visualized in 1957 by the General Assembly (G. S. 130-11) or furnished a more positive warning of the State's economic losses if neglected.

Tuberculosis Control Section

General. In general, the Tuberculosis Control Program of the Tuberculosis Section for the biennium has consisted of the following:

A. The REVISED FORMULA GRANT PROGRAM financed by the State of North Carolina and the U. S. Public Health Service.

B. SPECIAL TUBERCULOSIS CONTROL PROJECTS financed wholly by the U. S. Public Health Service.

A. The FORMULA GRANT PROGRAM up to January 1, 1965 consisted essentially of tuberculosis case-finding through chest x-ray surveys of the general population and special groups. This method of tuberculosis control was discontinued on December 31, 1964. The program was revised, and since January 1, 1965 consists of assisting health departments through our mobile x-ray clinics, in their services to the unhospitalized patient, both active and inactive; the examination of contacts, suspects and those persons who have a pronounced tuberculin skin test; also those persons who require a health card, and generally assisting counties in the backlog of their chest x-ray activities. In addition to these services, the Program also includes:

1. Public Nursing service to counties through the Public Health Nurse whose sole duty is that of tuberculosis control. This nurse is authorized but not yet employed.

2. The availability to counties of an X-Ray Technical Consultant whose duty is to assist local health departments in evaluating their x-ray facilities; offering advice to the local health director concerning the repair and purchase of x-ray equipment; establish and implement in-training workshops for x-ray technicians and others in county health departments who perform x-ray duties; attend formal training courses in x-ray technique and other subjects pertaining to tuberculosis control.

3. A Records and Procedures Analyst whose duty is to visit counties and instruct county personnel in methods of establishing a tuberculosis register and also to assist in all administrative matters pertaining to tuberculosis control.

B. **Special Tuberculosis Control Projects Financed Wholly by the U. S. Public Health Service**

This program became effective July 1, 1964 and emphasizes:

1. The improvement of services to the unhospitalized patient, contacts, and includes more extensive clinic, laboratory and also public health nursing services.

2. Increased efforts by the health departments to bring to examination all the close contacts of newly reported cases.

3. Bring to examination the household associates of those school children who show a tuberculin test of 5 mm. or over; children who show a test of less than 5 mm. should be periodically tested.

4. Establishing an isoniazid prophylaxis program for:

(a) Household contacts to recently diagnosed cases regardless of the skin test and for

(b) School children, particularly first-grade children, who show a positive skin test.

To implement this program, the U. S. Public Health Service has allocated funds to employ physicians, nurses, laboratory technicians, purchase supplies, funds for travel, both in-state and out-of-state, to attend meetings and courses of instruction in tuberculosis control; also funds for telephone and postage.

Counties and cities taking part in these Projects as of June 30, 1966 are Alamance, Bertie, Beaufort, Craven, Forsyth, Guilford, Halifax, Orange, Caswell, Chatham, Lee, Person, Pitt, Rockingham, Nash, Edgecombe, and the City of Rocky Mount. An additional seven counties have been scheduled for 1966-1967. The Laboratory Division has also received a U. S. Public Health Service grant of over $30,000 to employ personnel and to purchase supplies for increasing the efficiency of the Laboratory in aiding health departments.

C. **Other Activities Performed by the Tuberculosis Control Section**

These activities were:

1. Continued efforts to organize county chest clinics in cooperation with the State Sanatorium System. At this time there are 77 county clinics physically present, three independent city clinics, the Cherokee Indian Reservation; the Sanatorium System operates four out-patient clinics at the four State Sanatoria; seven counties use nearby clinics in their health districts.

2. Interpretation of miniature x-ray films at the Central Office for 12 counties and one city.

3. Attendance by the Section Chief at four county chest clinics and one city clinic.

4. Disseminate pertinent tuberculosis literature to counties and cities.

5. Cooperate with the Heart and Cancer Section by furnishing report of cardiovascular and lung cancer suspects found during chest x-ray activities.

6. Cooperation with the Nutrition Section in recommending proper diet to the tuberculosis patient.

7. Close liaison with the State Sanatorium System and the State Tuberculosis Association.

8. Two-day X-Ray Technician Seminars in New Bern, Fayetteville and Nags Head, coordinated by the X-Ray Technical Consultant of this Section.

9. Four one-day seminars on tuberculosis control at Waynesville, Salisbury, Winton, and Clinton, coordinated by the Chief of the Communicable Disease Control Section.

10. Temporary loan of x-ray technicians to health departments for the purpose of assisting in follow-up activities.

D. Personnel and Equipment

Personnel consists of one doctor, full time; two Public Health Advisors, one Records and Procedures Analyst, one X-Ray Technical Consultant, one full-time nurse (not yet employed), one full-time clerk in the field, three x-ray technicians, two clerks in the Central Office and one part-time darkroom technician.

Field equipment consists of two self-contained mobile x-ray clinics, three tractors and one mobile x-ray unit for emergency purposes, to be used in sensitive areas.

E. Accomplishments During the Biennium

1.	Miniature films made by our x-ray units during surveys	171,906
2.	Miniature films made by the unit on loan to Duke Hospital, Durham	28,131
3.	Miniature films interpreted at the Central Office for counties (and at chest clinics by the Section Chief)	66,316
4.	Diagnostic 14 x 17 films interpreted at chest clinics by the Section Chief	4,369
5.	Surveys conducted by x-ray mobile clinics and unit assigned for sensitive areas	81

LABORATORY DIVISION

July 1, 1964-June 30, 1966

The responsibilities of the Laboratory Division of the North Carolina State Board of Health are fixed by State statutes and by action of the State Health Director and State Board of Health. The responsibilities fixed by law do not change from year to year and form a foundation for the responsibilities determined by the State Board of Health. These can be changed to meet the changing needs of the state.

Advances in microbiology such as the fluorescent antibody technique makes it possible to identify bacterial and viral agents and antibodies in hours instead of days. The identification of Group A streptococcus and rabies virus are two examples.

Automated chemical analyses enables the central laboratory to offer mass screening services to the whole state. Screening for phenylalanine blood levels (PKU) in new born infants and glucose blood levels for diabetes.

While some examinations are either being phased out or discontinued because of changes in disease pattern in the state the capability to resume these examinations is being maintained.

The Laboratory has been organized into Sections which makes the Laboratory more stable as each Section can function independently of the others. This type of organization develops leaders who will make it easier for the Laboratory to expand when such expansion is needed.

The rate of increase in the number of specimens received and examinations made is increasing.

Our Cancer Cytology Section is receiving more specimens now than we had estimated we would be receiving by July, 1968.

The increase in Chemistry & Environmental Sciences Section is due in a large part to the PKU specimens and these are only for nine months. Next biennium we will be receiving approximately 100,000 PKU specimens a year.

Syphilis serology accounts for the majority of Infectious Diseases Section's examinations.

During the past biennium all serology except syphilis serology was moved to the Virus Section where the micro-titer technique is being put into use. This will cut the cost of reagents and technician time per test.

The Laboratory Farm is paying its way. The sheep blood alone would almost do this. However, a price cannot be placed on the ability to have healthy animals and fresh sheep blood when you need them.

Laboratory Certification and Approval and Training Section's responsibilities will be greatly increased during the next two years. It is our opinion judged by the results received on split samples that this Section is improving the quality of work being performed by the laboratories that we certify.

The biological products distributed are those required by law to be furnished free and ones needed in public health programs. In addition are those for distribution because commercial sources no longer stock them due to their short shelf life and small demand. Diphtheria antitoxin and rabies vaccine are two examples.

As a Civil Defense or Emergency Health Protection measure stable supplies and materials are stock-piled for at least a 12 month period and used in a manner to prevent them from being lost by shelf deterioration.

Two hundred thousand more examinations were performed during this past biennium than in the previous biennium.

LABORATORY DIVISION
STATE BOARD OF HEALTH
BIENNIAL REPORT

July 1, 1964—June 30, 1966

SPECIMEN EXAMINATIONS

Section	Total Examinations
Cancer Cytology	181,158
Chemistry & Environmental Sciences	241,669
Infectious Diseases	881,034
Virology	37,103
GRAND TOTAL	1,340,964

BIOLOGICAL PRODUCTS DISTRIBUTED

	Total
Typhoid Vaccine cc.	190,760
Smallpox Vaccine Tubes	406,160
Polio Vaccine cc. SALK—9 cc.	103,698
Rabies Treatments	145
Gamma Globulin cc.	20,672
Toxoids cc.	470,215
Diphtheria Antitoxin Units M	4,450
Tetanus Antitoxin Units M	4,954.5
Oral Polio 10 Dose Vials	33,772
Measles Vaccine—Total Doses	9,050
Measles Vaccine—Gamma Globulin 1 cc.	3,630

APPROVAL OR CERTIFICATION OF LABORATORIES

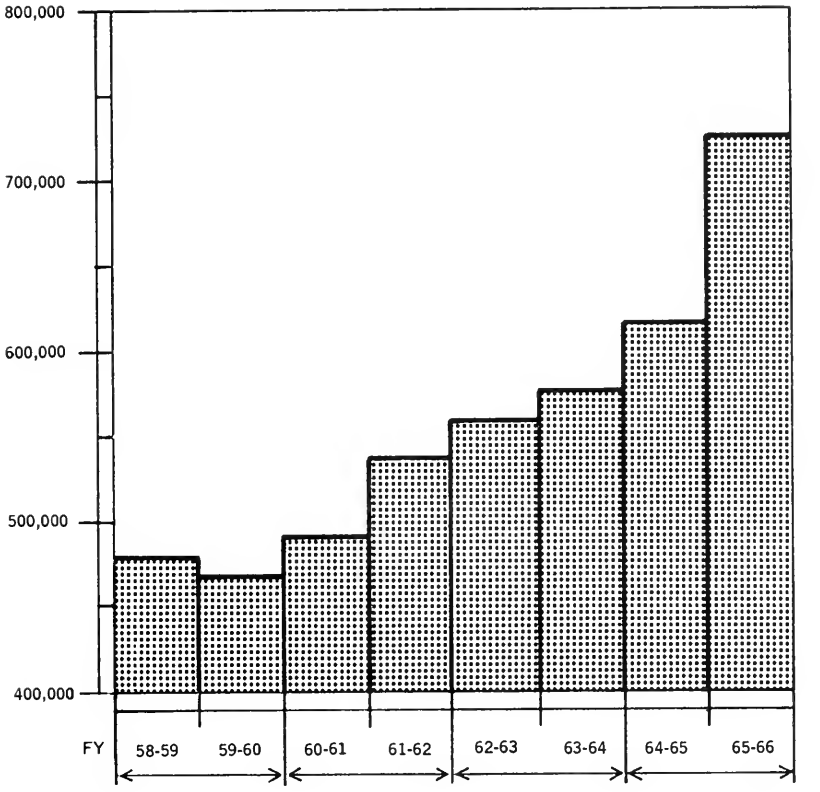
Approved Serology Laboratories	Visits	452
Certified Milk Laboratories	Visits	75
	Split Samples	1,120
Certified Water Laboratories	Visits	26
Delinquent Water Supplies	Visits	82

ADDITIONAL SERVICES

Animals Supplied	Number
Mice	12,871
Guinea Pigs	230
Hamsters	4
Rabbits	60
Blood Supplied	
Sheep (Milliliters)	235,050
TOTAL DEPARTMENTAL RECEIPTS	$233,174.94

NUMBER OF EXAMINATIONS
by Fiscal Years

LABORATORY DIVISION — STATE BOARD OF HEALTH



Fiscal Year	Number Examinations	Rate of Increase
1958-59	477,106	—
1959-60	463,393	−2.87
1960-61	490,139	+5.76
1961-62	534,560	+9.10
1962-63	557,940	+4.40
1963-64	557,187	+3.50
1964-65	611,254	+5.90
1965-66	725,186	+18.63

54.08 Percent Increase since 1958-59

Indicates biennium years

LOCAL HEALTH DIVISION

July 1, 1964-June 30, 1966

ADMINISTRATIVE SECTION: Dr. Robert D. Higgins, Director, died October 8, 1964. The position was filled by Dr. W. Burns Jones, Jr., who served from November 1, 1964 until January 1, 1966 when Dr. J. W. R. Norton became director.

At the close of the biennium, all eleven positions in the Administrative Section were filled except that of Assistant Director.

The Administrative Section for each year of the biennium 1964-65, and 1965-66 allocated funds by formula and in accordance with the Policies of the North Carolina State Board of Health For Allocation of State Aid Funds to Local Health Departments as follows:

1964-65	Regular State Funds		$1,563,976
	Federal Funds, General Health	$ 80,000	
	Maternal and Child Health	120,000	200,000
1965-66	Regular State Funds		$1,596,400
	Federal Funds, General Health	000	
	Maternal and Child Health	$120,000	120,000

Total State and Federal Funds allocated to local health departments for a generalized public health program for fiscal year 1964-65 were $1,763,976. Total State and Federal funds allocated to local health departments for fiscal year 1965-66 were $1,716,400 or a decrease of $47,576. Although state funds actually increased by $32,424 over the previous year, the fact that $80,000 of all Federal General Health Funds were lost to local health departments, the total decrease in State and Federal Funds available to local health departments was $47,576 less than the previous year of the biennium.

Local funds as indicated in the Local Health Service Budget for fiscal year 1964-65 were $8,026,994, and for fiscal year 1965-66 were $8,870,229. This total represents an increase of $1,582,264 or approximately 10.3% over the amount for the previous biennium. At the close of the biennium, it is interesting to note that 83.8% of all funds in support of the local health program comes from local sources, 15.1% from State funds and 1.1% from Federal funds.

As of June 30, 1966 there were budgeted in the one hundred counties and one city health department, a total of 1,477 full time positions, excluding the special project personnel of more than one hundred. Of the 1,477 full-time positions, 53 were health directors, 8 assistant health directors, and 7 dentists. There were 60 directors and supervising public health nurses, 560 staff nurses, 296 sanitarians and engineers, 4 public health investigators, and 14 public health educators. The remaining personnel consisted of 475 clerks, bacteriologists, technicians, laborers, janitors, etc.

There were 79 budgeted positions unfilled because of unavailable funds and personnel.

It is noted that the close of the biennium showed 66 local health departments in the state organized as follows:

Single County units	44
District Units consisting of two or more counties	21
Single City unit	1

During the biennium, the Local Governmental Employees' Retirement Plan continued to grow and as of June 30, 1966, 86 of the 100 counties provide their local health employees with this coverage, and three (Forsyth, New Hanover, and Union) have a separate retirement arrangement. The attached pages show pertinent data sheets for the two fiscal years.

TRAINING: The State Board of Health, through the Local Health Division provided training for the following public health personnel during the biennium. Training varied in length from a few days to one month or more:

38 Public Health Nurses attended a workshop in Chapel Hill

30 Public Health Nurses had orientation in other departments

11 Sanitarians attended a course on "Principles and Practices of Sanitation" in Chapel Hill

17 Sanitarians had orientation in other departments

2 Health Educators were "Oriented to Public Health" at the State Board of Health

Six members of the Laboratory staff attended specialized training at various times in Atlanta, Cincinnati, and Richmond. This included "Training in Virology," "Intestinal Parasites," "Methods and Practices for State Milk Survey Officers," and "Laboratory Diagnosis of Viral Infections."

In addition to funds expended for the above training, funds were supplied when possible for public health personnel to attend institutes, conventions, conferences, and workshops.

ADMINISTRATIVE ASSISTANTS (Records and Procedures Analysts): The two Administrative Assistants, Miss Doris Tillery and Miss Sarah Goggans, have continued to give consultation service on records and reports to the clerical staffs in local health departments in North Carolina. On June 15, 1966, Miss Jacquelyn Norris came to work as an Administrative Assistant for records and reports in the Home Health Services Program. Her primary assignments will be in this new program but later she will join the two others for generalized consultation on records and reports.

Emphasis continued to be placed on in-service training for clerical personnel. As referred to in the 1962-64 Biennial Reports, one day workshops had been initiated to supplement the week's training course which had been held for fourteen years. Early in 1965, a series of nine workshops was held over the State on the subject of the revised Annual Report. One hundred and thirty-two clerks attended and instruction was given to prepare the clerks for the changes which went into effect for the 1965 Annual Report.

In addition to established services, initiation of several new programs or projects has required services in the records and procedures areas:

1. Tuberculosis projects in counties of high incidence required renewing or establishing systems to support required reports.

2. Immunization projects required help with new forms and correlation of new procedures with those already existing.
3. Revisions of a form for recording of services to children in the schools was completed and initiated.
4. Work with the migrant program required recommendations and designing of record and report forms.
5. A time study on nursing services required much planning and consultation.
6. Initiation of the Home Health Services project involved planning, record revisions and design in anticipation of service under Medicare.

MIGRANT HEALTH PROJECT: The North Carolina State Board of Health has continued and expanded its Migrant Health Program in three areas of responsibility: (1) consultation with local PHS supported Family Health Service Projects, (2) consultation to communities without such projects, and (3) consultation with other agencies.

In the first category, a successful seminar was held prior to the beginning of each of the migrant seasons. In 1965, the Project staff and concerned community leaders were invited from Carteret County, Henderson County, and the Albemarle area; participants were also present from the Migrant Health Branch and from other agencies. These meetings were felt to be most valuable. In 1966, the seminar was enlarged to include Sampson County and a greater number of other agencies. In addition, the three staff consultants provided leadership as well as guidance to the local project personnel. Continued improvement in service has been the result.

The staff consultants have visited many counties which do not have organized programs for migratory agricultural workers. An attempt has been made to stimulate interest in such programs. There has been an increase in sanitation activities by the employment of Sanitation Aides through the N. C. Council of Churches O. E. O. Project. The sanitation component of this project has been given technical supervision by the Sanitary Engineering Division, and training and guidance has been provided by that Division. These Aides have worked in several counties not previously having active service to migrants, and have been supervised by the local health department sanitarians.

In 1966, three Health Education Aides were added to the staff and were placed by the State Board of Health in counties to increase the rapport between local agencies and migrants. They were used to stimulate activities in this area in counties not now having an organized health program for migrants.

Coordination, both formal and informal, has been effectively achieved with other agencies. This is especially true with the State Department of Public Welfare and the Employment Security Commission. Joint conferences have been held, and areas of mutual interest (e.g., Day-Care Services) have been fully explored. Close liaison has been established with the N. C. Council of Churches Migrant Project. Continued coordination will be sought, and target area and objectives will be jointly planned.

The Migrant Project and the Sanitary Engineering Division have worked in close cooperation in the continuing implementation of the state-wide law on the sanitation of migrant labor camps and related matters. Continued improvement is noted, especially in those counties where this previously had little priority of efforts.

All the counties have been indexed for inclusion in the interstate referral system; and the North Carolina Health Service Index was published in August, 1965. A corollary effort is being made to develop a handbook of health services available to migrants in selected counties. An inventory has been completed on several counties; this will be expanded to include others. This work was made possible by the employment of a state government intern during the summer months of 1965 and 1966.

TRAINING TASK FORCE: The Training Task Force was not officially funded by OEO until July 1, 1966. However, a grant from the North Carolina Fund as of August 1, 1965 made it possible for the project to operate on a limited basis while waiting for funding from Washington. A full time project coordinator and a health educator were employed, and they were given part-time clerical assistance. In addition, the services of other state consultants, especially that of nursing, were available as needed.

The program activities thus far can be said to fall into three phases: Staff Orientation, Community Studies, and Training Activities.

During the early stages of the program, it was necessary for the team to study as many programs as they could which involved the use of subprofessionals. Also, the health educator has to become re-acquainted with the areas of her profession which had not been used extensively in the position she held before joining the Task Force. Because the coordinator was not from a local community and had not worked at the state level in North Carolina, she had to spend much time becoming acquainted with the various state programs and staffs. During this period local agencies were notified of the existence of the Training Team and were invited to use our services. The few that responded to this were given consultation in helping plan training programs. Of course, many of the local OEO projects had already placed subprofessional workers in the community. After studying state resources and programs and what has been written on international and national programs using subprofessions, we began to study the various communities in North Carolina which were doing this.

It became evident that planning and implementing a training program could not be done by merely looking at that one area of concern. The problems of coordinated program planning, cooperative working relationships, and community development often had to be solved before an agency could really mount an effective training program. In some instances, we were able to help improve local agency relations through planning a training program in which there was inter and intra-agency participation. We are using training as a means to provide more than skills for a certain number of people. It is also a method for improving local coordination and cooperation.

In most instances our assistance to local programs consists of the more traditional type of consultation which has made it possible for us to improve some of the training approaches through sharing with the local agencies what we have learned about training of subprofessional workers. This consultation has been used by the majority of the community action programs.

In addition, we have planned workshops for the WAMY area, the Albemarle Area Family Planning Project, the Eastern Band of Cherokee Indians Project, with follow-up training scheduled for future dates. The sessions in WAMY lasted three days and involved most of the state agencies in addition to local resources. The Albemarle program lasted for one week and largely involved local agencies with plans for more use of state staff in future programs. Our contact with the Cherokee program has resulted in what we suspect is the greatest use of state resources by any one local OEO project. It is almost impossible to name a state service agency which has not participated in helping train the local staff. More exact figures on this will be available in the near future from the Cherokee project.

We have participated in various professional meetings such as with health educators, nurses, etc., to explain our project in particular and the meaningful use of subprofessional workers in general.

A questionnaire was sent to find out the number of nonprofessional workers being used in North Carolina.

We have worked with the Home Health Services team in communities interested in using disadvantaged people as Home Health Aides.

During the past few months we have asked the dental health educator, a health education consultant, and a nutrition consultant to begin working with us on some specially designed materials which can be used with the undereducated population in North Carolina.

A great deal of our energies have been used in establishing lines of communication within our own agency and with other state agencies. The working relationships seem to be more active than in the past. Certainly a lot of people have gotten together to create a product that we can all share, a well trained subprofessional worker.

Problems such as interpersonal relations, insecurity, and jealousy, that spoil any program have been in evidence as always. But, all of the agencies seem to have people on their staffs that we can call on to help all of us iron out the situations that arise when one of us is guilty of being human.

In summary, we have spent the year of being almost unfunded learning all we can about training, and our state and local resources; giving consultation when it was asked for and asking if we could come for a visit when they didn't request our help; planning training and in-service programs using what we now know about the best way to train this new kind of staff member.

EMERGENCY HEALTH PREPAREDNESS: During the period covered in this report, the North Carolina State Board of Health has assumed the delegated responsibility of the Packaged Disaster Hospital program and the Medical Self-Help Training program with no additional state staff.

Fifteen additional Packaged Disaster Hospitals have been pre-positioned in the State bringing the total number to fifty. State-County and Federal-State contracts have been made effective and community Utilization Plans have been prepared for forty-seven of the units. Fifteen of the units have been

relocated because of storage site deficiencies in original site. Orientation and familiarization conferences on the Packaged Disaster Hospital have been planned and presented in four counties. North Carolina has assumed the responsibility of this $2,000,000 Federal emergency medical stockpile, its storage, security, and training for utilization. A minimum of one field consultant should be available to visit, inspect, and to stimulate and offer assistance in utilization planning. North Carolina has done far less in this than most of the other states, although appropriate requests have been made.

Thirty thousand and twenty-eight persons have been trained in Medical Self-Help during this period. Twenty-two thousand, seven hundred and thirty-one of these were reported during the last six months of the period. The increase is the direct result of having a field consultant to work with schools. The salary travel and subsistence of this position have been paid entirely by Federal funds on a contract basis. The National goal in this survival training program is at least one member of each family trained in Medical Self-Help. This would be approximately 1,000,000 in North Carolina. No state paid staff has been provided in this activity. Most states have staffed this program and have far exceeded North Carolina in providing its population with this essential training for civilian survival in national disaster situations. North Carolina is currently one of the very lowest states in the percentage of its population having the benefit of this survival resource. In a state our size and with a population ranking eleventh in the nation, there should be at least two state field consultants working in this activity.

The Federal agency furnishes and maintains the Packaged Disaster Hospitals, supplies training manuals, films, and slides; furnished instructor's kits, student supplies, exhibits and films in Medical Self-Help Training; and assigns one health program representative to the state to assist it in its total Emergency Health Preparedness program. The program in the state is not a federal program, it is the emergency preparedness responsibilities delegated to state agencies by state laws, and the governor through the state civil defense agency and Department of Administration, Office of Emergency Planning.

During the period covered by this report, the state has provided a stenographer, the travel and subsistence of the federally assigned Health Program Representative, office space and equipment, postage and express charges, and telephone charges.

HEALTH EDUCATION SECTION: Activities of the Section during the biennium of 1965-66 reflect the problems and programs of the times: low income families, training and in-service education, fluoridation, and communications.

Low Income Families

Staff members participated on health panels for North Carolina Fund area meetings of OEO Boards. They helped plan, and participated in, regional meetings for public health personnel to acquaint them with the Act and to encourage active cooperation and participation. One consultant was given leave to help with VISTA Training and later resigned to join the staff of the State Office of Economic Opportunity. Consultation was given local projects, particularly in the WAMY area and Craven County, where OEO employed non-credential health educators and assigned them to the health departments.

Prior to the initiation of the State Health Department Migrant Health Project, consultation was given the local project in Pasquotank County, in securing a health educator, and in consulting with him. Following the establishment of the state project, consultants assisted at the four workshops: Watha, Camp Betsy Jeff Penn, Hendersonville, and Elizabeth City.

The Section Chief collected information on health for use in an adult basic education text, at the request of the Department of Public Instruction.

Training and In-Service Education

New programs increased the need for continuing education and training of new public health workers in new classifications. Consultants assisted with the training of immunization aides and of home visitors. A one-week workshop was conducted for the non-credential health educators employed by OEO in local health departments. From August, 1965, to June, 1966, one state consultant was loaned full time to the new Training Task Force of the State Board of Health.

Participation in the planning and conducting of in-service education programs for local non-prepared public health nurses constituted a major activity. Consultants assisted nursing consultants in seminars by conducting those programs concerned with community education and organization and group teaching methods. They participated in the planning and conducting of the regular in-service education programs of local public health nurses throughout the state.

In addition to regular consultation to local health educators, the Section-sponsored Semi-annual Conferences were on today's health problems: **Planning Health Education Programs, Teaching the Underachiever; Use of the Non-professional in Health Education; and the Health Education Implications of Medicare.**

Fluoridation

The promotion of fluoridation of public water supplies again came to the fore this biennium with active participation by members of this Section. The National Dental Health Assembly, in which personnel from this Section took part, provided the impetus. A state conference planned by the Dental Health Division with the assistance of the Chief of the Section followed, and all consultants participated. The recommendation that a state task force on fluoridation be organized with a full time coordinator employed by the Dental Health Division is planned for September 1, 1966.

Use of Educational Television in Parent Education

A section consultant who served as Chairman of the Mental Health Committee of the State P.T.A., was active in initiating and planning with the Department of Mental Health and the Extension Service a series of programs on WUNC-TV. Consultation was given in organizing local groups to assure a wide listening audience in the form of discussion groups. As a result, the P.T.A. and UNC-TV are planning a series on Accident Prevention for 1967.

Consultation in Other State Board of Health Programs

(1) **Sanitation**—Consultation was given in the preparation of a "slide-talk" presentation on the sewage problem on Harbor Island. The presentation by the engineers resulted in positive action by the community. Assistance in other counties was given on preparation of a leaflet on garbage disposal and in planning food service institutes.

(2) **Tuberculosis Control**—Consultation was given on two local mass x-ray surveys (Hoke and Stokes).

(3) **School Health**—Assistance was given in family life education for schools and P.T.A.'s; and on health curriculum for some headstart programs. One consultant continued to serve on the School Health Coordinating Committee.

(4) **Neurological and Sensory Diseases**—One consultant served on the Advisory Committee for this state project, and was active in promoting and carrying out in-service education programs in Greenville (the site of one of the two local clinics) for rehabilitation counselors and for the city school teachers.

(5) **Maternal and Child Health**—Consultation was given the new health educator in the maternity project in Halifax County. Assistance was given also in the establishment of the maternity clinics in Rockingham and Bertie Counties. One consultant cooperated with the welfare department on a training program for foster home parents in Wilkes County.

(6) **Care of Aged**—One consultant participated in interpretation and development of Home Health Services, consultation to community groups, and assistance in planning in-service training for rest home operators (Burke County Department of Public Welfare and Health Department). Informal interchanges were made in behalf of nursing home operators but more helpful relationships are planned.

Consultation and Liaison with Other Organizations

The Section feels a responsibility for assisting related organizations in improving their educational programs and of coordinating their activities. Staff members have served as coordinators, committee chairmen, group leaders, or consultants, to the following state groups: Peace Corps Training; North Carolina Tuberculosis Association; Parent-Teacher Association; Family Life Council; Health Council; Conference for Social Service; Schools of Public Health of University of North Carolina, University of Michigan, and University of California.

Publications

Section consultants played major roles in the production of the following publications: "It's Your Health Department"; revision of "You and the Board of Health"; "Have Your Next Baby When You Want One"; "Clinical Aide Manual"; rough draft of "Manual for Home Health Services"; "Health Careers for Tar Heels"; "Bulletin" (quarterly).

Administration

At the beginning of the biennium, thirteen trained health educators were employed in eight local health departments; and at the end, fifteen trained health educators were employed in ten local health departments. One additional vacancy will be filled as of September, 1966, making sixteen health educators in eleven health departments. In addition, three non-credential health educators were employed in three different counties.

At the end of the biennium, the state staff consists of a chief and three consultants (one position vacant). Filling the eastern consultant position which has been vacant for eighteen months, is vital to carrying out our responsibilities. Recruitment and placement of local health educators challenges the section to explore new patterns of servicing and financing to meet the manpower shortage in trained health educators.

PUBLIC HEALTH NURSING SECTION: There are thirty budgeted nursing positions in the State Board of Health, an increase of nine in the last biennium. As of June 30, 1966, only fourteen of these positions were filled and an active recruitment program has been developed to fill the remaining sixteen unfilled positions. To date, five new nurses have been recruited and it is anticipated that there will be nineteen by mid-September.

The Professional staff of the Public Health Nursing Section consists of a chief, an assistant chief and nine generalized consultants. In addition there are four other nursing positions in the Local Health Division and all are under the direction of the chief nurse. A U. S. Public Health Service Nurse has been assigned to this section to assist with the implementation of Home Health Service under "Medicare". The specialized team for Home Health Services now consists of two nursing consultants, a physical therapy consultant, a nonmedical administrator and a records analyst. The work of the team is closely coordinated with the activities of the generalized nursing consultants to assist local health departments in the development of home care programs for the chronically ill and aged. This has been given the highest priority for activities within the section since November, 1965 and continues to be of major concern.

During the biennium, Dr. Ruth Brong, the chief nurse, resigned and a new chief nurse, Miss Elizabeth Holley, was appointed in February, 1966. The assistant chief nurse resigned and that position is unfilled at present. Only five of the nine generalized nursing consultant positions are filled. The major factor in recruiting nurses for these positions is the keen competition in salaries nationwide and the small number of qualified public health nurses available to assume these leadership positions. Considerable time has gone into drafting recommendations for reclassification and salary increases for all state level nursing positions. This is a critical problem which affects not only the Public Health Nursing Section, but, also, the specialized program areas of Maternal and Child Health, Crippled Children, Chronic Disease, Tuberculosis, etc., where state nursing consultants are needed.

Six hundred and ninety-nine nursing positions are budgeted in local health departments, an increase of one hundred thirty-six positions over the last biennium. This number includes seventy-nine special project nurses. Of the

total number of local nursing positions, there are forty unfilled. There are nine local nursing directors and one position vacant; twenty-five Public Health Nursing Supervisor II positions with two vacancies; twenty-eight Public Health Nursing Supervisor I positions with six vacancies; one hundred fifty-nine Public Health Nursing II positions with eleven vacancies; four hundred sixty-five Public Health Nursing I positions with nineteen vacancies; and twelve General Duty Nurse positions with one vacancy. Of importance here is to note that the position of Public Health Nurse II required the minimum national qualifications of a Bachelor's degree in nursing accredited for preparation in public health or the equivalent in preparation and experience.

In North Carolina, four hundred seventy-seven positions in local departments or 68.24% do not meet the national recommended requirements for nurses to practice public health nursing. This reflects a serious need for increasing nursing education in collegiate schools of nursing and **especially** the need for expanded **in-service training** to be conducted by the state and local health departments. Funds for training have not been available in the last biennium and request for such assistance has been given high priority in the budget request for the next biennium.

The serious shortage of professional personnel, especially in nursing, and the increased demands for out-of-hospital patient care which has been greatly intensified with the advent of "Medicare", has led to the creation of two new types of non-professional nursing classifications under the State Personnel Department. For the first time in this state, licensed practical nurses and health aides will be recruited, trained and employed in local health departments. These non-professional personnel will work under the direct supervision of the professional nurse and other professional personnel providing patient care in the home. This new program is just getting underway and, to date, only two licensed practical nurses have been employed. Working with the Community College system, a curriculum has been developed to train home health aides and an intensive recruitment program has been initiated.

A very serious problem confronting public health nursing, state and local, is the fragmentation, duplication, and lack of coordination in providing health services to the citizens of North Carolina. In the past two years, this has been magnified manifold by the programs developed locally as a result of the Economic Opportunity Act, and, more recently, by Title I Amendment to the Elementary and Secondary School Act. Nurses have been employed by O.E.O. projects and local school boards who, in many instances, are practicing without medical direction and nursing supervision. This places an additional demand on the already serious shortage of nurses and requires these nurses to do many functions which are non-nursing and could as well be done by less well prepared personnel. It appears that this is a gross misuse of professional nursing time when nurses are recruited from essential positions in hospitals, health departments and nursing homes and placed in positions which do not require professional nursing skills and judgment. This trend in employing nurses further disrupts the existing programs already providing health care in and out of hospitals in the community. The generalized and specialized nursing consultants have spent considerable time in attempting to assist local

communities to coordinate all available services and personnel in order to overcome this problem and utilize professional nurses to the best advantage in providing high quality patient care.

A time and cost study of nursing services in local health departments was undertaken in 1965-66 by the Public Health Nursing Section. With the assistance of the Public Health Statistics Section and the Budget Office, eleven counties representing geographic distribution and size of agency were selected for the study. The final report, made available in the spring of 1966, provides excellent information which will be useful in determining reasonable cost for home health services under "Medicare" as well as contributing to other budgeting and accounting procedures. It also provides a basis for further examination and planning for nursing services to utilize professional nursing time to better advantage, reorganize services in various program areas and expand services in the areas of most critical need.

HOME HEALTH SERVICES: The Home Health Services Grant was made to the State Board of Health early in February, 1966 in the amount of approximately $200,000, plus the required ten per cent matching state funds. These funds are being used to stimulate expansion of nursing and other out-of-hospital services in selected communities throughout the state, and to prepare for participation as providers of home health services under Title 18, P. L. 89-97. These home health care activities are also serving as pilot projects, to demonstrate the effectiveness of coordinated efforts in providing services to the chronically ill and aging at home. Further, there is an opportunity to gain experience in training and orienting new personnel (such as home health aides) and in developing, standardizing, and certification procedures.

Ten counties (six departments) were selected as recipients of Home Health Service Grants from the State Board of Health. These counties are: New Hanover, Halifax, Guilford, The Chapel Hill District of five counties, Buncombe, and Gaston. Four of these counties have been certified by the Social Security Administration to provide home health services under Medicare (Buncombe, Gaston, Guilford, and New Hanover).

The home health team is presently visiting all agencies in North Carolina which have expressed interest in becoming a certified home health agency. At this time approximately forty-five separate meetings have been held by members of the team. During these meetings staff members explain the federal **Conditions of Participation for Home Health Agencies** and offer consultation to help the agency become certified.

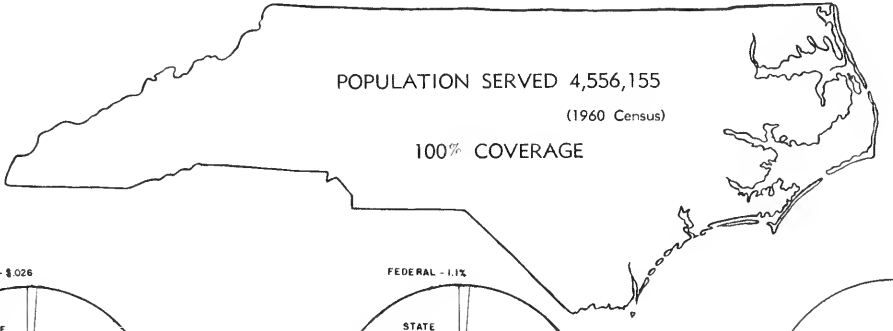
The home health services team has also worked in conjunction with other State Board of Health Staff members to develop a Home Health Services Manual for distribution to all prospective home health agencies in the state.

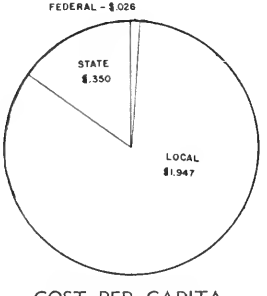
Provisions are being made by team members to train local health agency members, using professional schools, junior colleges, and vocational education facilities. This will be in the form of in-service or refresher courses for nurses, basic preparation for home health aides, and for orientation to public health for other professional disciplines. Recruitment of inactive nurses and physical therapists for full or part-time employment is being implemented.

NORTH CAROLINA LOCAL HEALTH SERVICE BUDGET

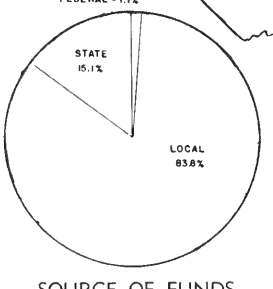
FISCAL YEAR 1965-1966

TOTAL STATE FUNDS	$ 1,596,400.00
TOTAL FEDERAL FUNDS	$ 120,000.00
TOTAL LOCAL FUNDS	$ 8,870,229.18
TOTAL BUDGET LOCAL HEALTH	$10,586,629.18





COST PER CAPITA

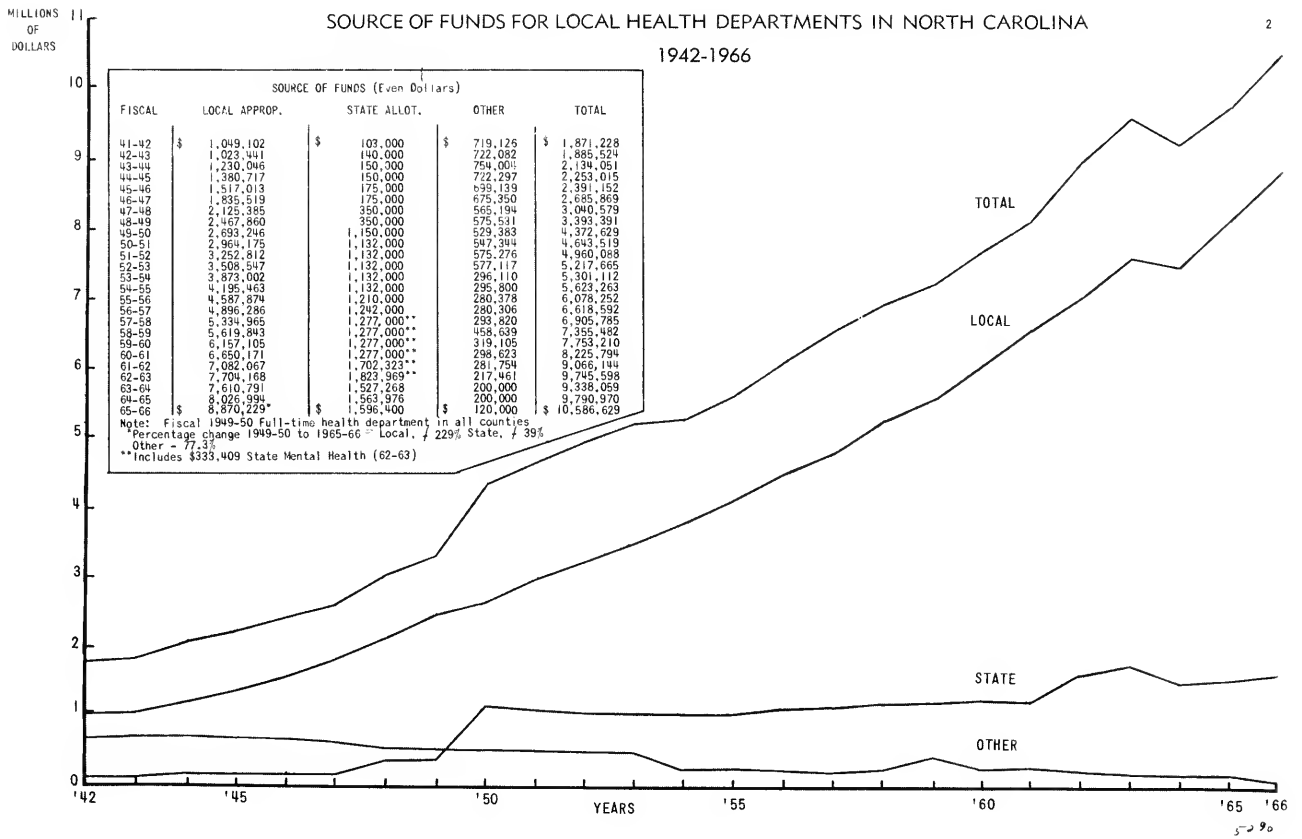


SOURCE OF FUNDS

COST PER CAPITA ALL FUNDS

SOURCE OF FUNDS FOR LOCAL HEALTH DEPARTMENTS IN NORTH CAROLINA

1942-1966



SOURCE OF FUNDS (Even Dollars)

FISCAL	LOCAL APPROP.	STATE ALLOT.	OTHER	TOTAL
41-42	$ 1,049,102	$ 103,000	$ 719,126	$ 1,871,228
42-43	1,023,441	140,000	722,082	1,886,524
43-44	1,230,046	150,000	754,001	2,134,051
44-45	1,380,717	150,000	722,297	2,253,015
45-46	1,517,013	175,000	699,139	2,391,152
46-47	1,835,519	175,000	675,350	2,685,869
47-48	2,125,385	350,000	565,194	3,040,579
48-49	2,467,860	350,000	575,531	3,393,391
49-50	2,693,246	1,150,000	529,383	4,372,629
50-51	2,964,175	1,132,000	547,344	4,643,519
51-52	3,252,812	1,132,000	575,276	4,960,088
52-53	3,508,547	1,132,000	577,117	5,217,665
53-54	3,873,002	1,132,000	296,110	5,301,112
54-55	4,195,463	1,132,000	295,800	5,623,263
55-56	4,587,874	1,210,000	280,378	6,078,252
56-57	4,896,286	1,242,000	280,306	6,618,592
57-58	5,334,965	1,277,000**	293,820	6,905,785
58-59	5,619,843	1,277,000**	458,639	7,355,482
59-60	6,157,105	1,277,000**	319,105	7,753,210
60-61	6,650,171	1,277,000**	298,623	8,225,794
61-62	7,082,067	1,702,323**	281,754	9,066,144
62-63	7,704,168	1,823,969**	217,461	9,745,598
63-64	7,610,791	1,527,268	200,000	9,338,059
64-65	8,026,994	1,563,976	200,000	9,790,970
65-66	$ 8,870,229*	$ 1,596,400	$ 120,000	$ 10,586,629

Note: Fiscal 1949-50 Full-time health department in all counties
*Percentage change 1949-50 to 1965-66 = Local, ↑ 229% State, ↓ 39%
Other - 77.3%
**Includes $333,409 State Mental Health (62-63)

DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES - FISCAL YEAR 1965-66

COUNTY, CITY OR DISTRICT	1960 POPULATION	DATE ORGANIZED	TOTAL BUDGET		SOURCE OF FUNDS AND AMOUNTS						PART TIME	FULL TIME PERSONNEL (Merit System)					DENT. WKS.
			AMOUNT	PER CAP.	STATE ALLOTMENT	PER CAP.	LOCAL APPROPRIATION	PER CAP.	FEDERAL ALLOTMENT	PER CAP.	H. O.	H. O.	OTH. MED. DIR.	P. H. N.	SANT.	CLERKS AND OTHERS	
Alamance	85,674	1938	$ 215,264.00	$2.513	$ 24,252.00	$ .283	$ 189,252.00	$ 2.209	$ 1,760	$ .021		1		13s.	5s.	6ed.	30
Alleg-Ashe-Watauga(Sp.G)	45,031	1938-35	70,785.21	1.572	25,071.00	.557	44,561.21	.989	1,153	.026	1			3	3s.	3	20
Alleghany	7,734	1938	12,958.60	1.676	4,975.00	.643	7,791.60	1.008	192	.025				1	1	1	
Ashe	19,768	1938	24,034.62	1.216	8,308.00	.420	15,193.62	.769	533	.027				1	1	1	
Watauga	17,529	1935	23,701.78	1.352	7,301.00	.417	15,972.78	.911	428	.024				1	1	1	
Anson	24,962	1937	63,789.72	2.555	11,691.00	.468	51,264.72	2.054	834	.033	1			3	1	2	20
Avery	12,009	1935	17,762.84	1.479	6,667.00	.555	10,794.84	.899	301	.025				1	1	1	0
Beaufort	36,014	1923	78,717.00	2.186	14,572.00	.405	63,052.00	1.751	1,093	.030		1		5	3	2	0
Bertie	24,350	1934	44,783.87	1.839	10,705.00	.440	33,195.87	1.363	883	.036		1		2	1	1	20
Bladen	28,881	1921	51,616.34	1.787	13,251.00	.459	37,377.34	1.294	988	.034		0		3	2	2	20
Brunswick (Sp.G.)	20,278	1949	48,628.00	2.398	10,557.00	.521	37,400.00	1.844	671	.033		0		2	2	3	10
Buncombe	130,074	1913	529,164.20	4.068	38,020.00*	.292	488,690.20	3.757	2,454	.019		1	1	19dn. s.	14s.v. i.	14t.ed.	52d.
Burke	52,701	1937	107,393.81	2.038	16,432.00	.312	89,861.81	1.705	1,100	.021		1		4	3	3	24
Cabarrus	68,137	1919	162,991.60	2.392	21,927.00*	.322	139,570.60	2.048	1,494	.022		1		11s.	4	7	40
Caldwell	49,552	1937	65,556.00	1.323	16,893.00	.341	47,343.00	.955	1,320	.027		1		2	1	2	20
Carteret	30,940	1941	57,525.80	1.859	11,186.00	.361	45,593.80	1.474	746	.024	1			3	1	2	
Catawba-Lincoln-Alex	117,630	1938-40-47	233,839.50	1.988	40,352.00	.343	190,787.50	1.622	2,700	.023		1		14s.	8s.	7t.	0
Catawba	73,191	1938	134,827.00	1.842	20,954.00	.286	112,300.00	1.534	1,573	.022				8	3	5	
Lincoln	28,814	1940	55,422.00	1.923	10,470.00	.363	44,210.00	1.534	742	.026				3	3	1	
Alexander	15,625	1947	31,490.00	2.015	7,132.00	.456	23,973.00	1.534	385	.025				2	1	1	
Cherokee-Clay-Graham	28,293	1937-36	59,840.79	2.115	18,238.00	.645	40,823.79	1.443	779	.027				4	2	3	22
Cherokee	16,335	1937	29,081.00	1.780	7,442.00	.455	21,199.00	1.298	440	.027				2	1	1	
Clay	5,526	1937	10,891.00	1.971	4,527.00	.819	6,215.00	1.125	149	.027				1		1	
Graham	6,432	1936	14,133.00	2.197	4,805.00	.747	9,138.00	1.421	190	.029				1		1	
Cleveland	66,048	1938	127,515.00	1.931	21,536.00	.326	104,226.00	1.578	1,753	.027		1		5	4s.	5b.	30
Columbus (Sp.G)	48,973	1921	79,676.00	1.627	18,994.00	.388	58,971.00	1.204	1,711	.035		1		5	2	3	20
Craven	58,773	1921	116,952.68	1.990	19,491.00	.332	95,673.68	1.628	1,788	.030		0		4s.	5s.	5t.	20
Cumberland	148,418	1919	283,797.00	1.912	42,093.00*	.284	237,228.00	1.598	4,476	.030		1		15s.	13s. i.	8b.	30
Currituck	6,601	1938	21,566.49	3.267	5,165.00	.782	16,217.49	2.457	184	.028		1		1		1	6
Dare (Sp.G)	5,935	1937	31,794.00	5.357	7,749.00	1.305	23,892.00	4.026	153	.026		0		1	2	1	6
Davidson	79,493	1917	116,779.00	1.469	22,745.00	.286	92,161.00	1.159	1,873	.024		1		7	4	4b.	30
Davie-Yadkin	39,532	1938-31	63,125.03	1.597	17,299.00	.438	44,873.03	1.135	953	.024		0		4	2	2	20
Davie	16,728	1938	26,855.00	1.605	7,129.00	.426	19,338.00	1.156	388	.023				2	1	1	
Yadkin	22,804	1931	28,180.00	1.236	8,570.00	.376	19,045.00	.835	565	.025				2	1	1	

DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES-FISCAL YEAR 1965-66

COUNTY, CITY OR DISTRICT	1960 POPULATION	DATE ORGANIZED	TOTAL BUDGET		SOURCE OF FUNDS AND AMOUNTS						PART TIME	FULL TIME PERSONNEL (Merit System)					DENT. WKS.
			AMOUNT	PER CAP.	STATE ALLOTMENT	PER CAP.	LOCAL APPROPRIATION	PER CAP.	FEDERAL ALLOTMENT	PER CAP.	H. D.	H. D.	OTH. MED. DIR.	P. H. N.	SANT.	CLERKS AND OTHERS	
Duplin	40,270	1934	$ 74,873.11	$ 1.859	$ 16,627.00	$ .413	$ 56,914.11	$ 1.413	$ 1,332	$ .033		1		5	2	2	20
Durham	111,995	1913	358,059.00	3.197	33,584.00*	.300	322,039.00	2.875	2,436	.022		1		21dn.	11s.i.	15 b.d. 1 ed.	52d.
Edgecombe Ex. (R.M.)	39,401	1919	79,876.00	2.027	16,303.00	.414	62,060.00	1.575	1,513	.038		0		7s.	2	3	20
Forsyth	189,428	1913	485,867.00	2.565	48,601.00	.257	433,034.00	2.286	4,232	.022		1	1	28 dn. 1 s.	15 ds. s. 1 i.	20t. b. d.	30
Franklin	28,755	1930	49,843.65	1.733	11,621.00	.404	37,261.65	1.296	961	.033	1			3	1	2	20
Gaston	127,074	1928	310,029.00	2.440	36,909.00*	.291	270,199.00	2.126	2,921	.023		1		19 dn. s.	12ds. s	13ed.	30
Granville	33,110	1919	60,318.24	1.821	13,018.00	.393	46,393.24	1.401	907	.027		0		4	1	1	20
Greene	16,741	1937	41,539.38	2.481	9,402.00	.562	31,496.38	1.881	641	.038		0		3	1	2 ed. n.	10
Guilford	246,520	1911	740,130.00	3.002	63,892.00*	.259	670,982.00	2.722	5,256	.021		1	1	42 dn. s. 1 pt.	16s.	33d. b. t.	52d.
Halifax	58,956	1919	149,555.90	2.537	22,982.00*	.390	124,513.90	2.112	2,060	.035		1		11	3	6b. a. o.	20
Harnett	48,236	1936	80,000.00	1.659	17,934.00	.372	60,560.00	1.256	1,506	.031		1		5s.	1	2	20
Haywood	39,711	1934	71,284.40	1.795	13,089.00*	.330	57,393.40	1.445	802	.020		1		4	2	3t.	20
Henderson	36,163	1947	72,095.97	1.994	12,827.00	.355	58,517.97	1.618	751	.021	1			4	2	2	20
Hertford-Gates	31,972	1936-40	66,925.72	2.093	17,171.00	.537	48,727.72	1.524	1,027	.032		1		4	1	1	20
Hertford	22,718	1936	40,678.52	1.791	9,721.00	.428	30,219.52	1.330	738	.033				2			
Gates	9,254	1940	21,263.77	2.298	5,865.00	.634	15,109.77	1.633	289	.031				2			
Hoke	16,356	1943	44,693.68	2.733	8,840.00	.541	35,247.68	2.155	606	.037	1			2	1	1	10
Hyde (Sp. G.)	5,765	1937	20,122.00	3.490	7,249.00	1.257	12,672.00	2.198	201	.035		0		1		1	10
Iredell	62,526	1942	96,600.16	1.545	20,102.00	.322	74,914.16	1.198	1,584	.025				5	3	3b.	30
Jackson-Macon-Swain	41,102	1934-36-34	78,294.90	1.905	20,604.00	.501	56,683.90	1.379	1,007	.025				3	3s.	3	30
Jackson	17,780	1934	24,171.93	1.360	7,177.00	.404	16,573.93	.932	421	.024				1	1	1	
Macon	14,935	1936	22,663.07	1.518	6,863.00	.460	15,454.07	1.035	346	.023				1	1	1	
Swain	8,387	1934	18,332.40	2.186	5,326.00	.635	12,766.40	1.522	240	.029				1	1	1	
Johnston	62,936	1937	83,997.00	1.335	21,972.00	.349	60,151.00	.956	1,874	.030		1		6s.	2	2	30
Jones	11,005	1949	24,193.60	2.198	6,587.00	.599	17,150.60	1.558	456	.041		0		2		1	10
Lenoir	55,276	1917	92,052.00	1.665	19,857.00	.359	70,538.00	1.276	1,657	.030		1		5	2	4	20
McDowell	26,742	1945	43,748.00	1.636	10,982.00	.411	32,144.00	1.202	622	.022		1		2	1	1	20
Madison	17,217	1949	36,758.00	2.135	7,845.00	.456	28,509.00	1.656	404	.023	1			3	1	1	14.5
Martin	27,139	1937	60,877.00	2.243	12,384.00	.456	47,551.00	1.752	942	.035		0		3	1	1	
Mecklenburg	272,111	1918	1,420,615.00	5.221	71,281.00*	.262	1,343,213.00	4.936	6,121	.023		1	2	74 dn. s.	36 ds. s. i.	45 t. b. 1 ed. n.	52d.
Mitchell-Yancey	27,914	1944-35	39,066.94	1.400	14,277.00	.511	24,105.94	.864	684	.025				2	1	2	12
Mitchell	13,906	1944	16,553.35	1.190	6,613.00	.475	9,596.35	.690	344	.025				1		1	
Yancey	14,008	1935	17,038.00	1.216	6,698.00	.478	10,000.00	.714	340	.024				1		1	

DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES - FISCAL YEAR 1965-66

COUNTY, CITY OR DISTRICT	1960 POPULATION	DATE ORGANIZED	TOTAL BUDGET		SOURCE OF FUNDS AND AMOUNTS						PART TIME	FULL TIME PERSONNEL (Merit System)					DENT. WKS.
			AMOUNT	PER CAP.	STATE ALLOTMENT	PER CAP.	LOCAL APPROPRIATION	PER CAP.	FEDERAL ALLOTMENT	PER CAP.	H. D.	H. O.	OTH. MED. DIR.	P. H. N.	SANT.	CLERKS AND OTHERS	
Montgomery	18,408	1942	$ 32,091.50	$ 1.743	$ 8,328.00	$ .452	$ 23,209.50	$ 1.261	$ 554	$ .030	1			2	1	1	10
Moore	36,733	1928	64,334.00	1.751	13,849.00	.377	49,489.00	1.347	996	.027		1		3	2	2	20
Nash Ex. (R.M.)	43,680	1915	79,649.76	1.824	16,686.00	.382	61,575.76	1.410	1,388	.032		1		5	2	2	20
New Hanover	71,742	1913	209,206.73	2.916	22,180.00	.309	185,341.73	2.583	1,685	.024		1		13 dn. s.	4ds.	11b.t.	30
Northampton	26,811	1917	59,241.00	2.210	12,655.00	.472	45,576.00	1.700	1,010	.038		1		3	1	2	20
Onslow	82,706	1941	100,270.00	1.212	20,873.00	.252	76,741.00	.928	2,656	.032		1		6	4	2	30
Orange-P-C-Lee-Caswell	142,622	1935-37-46-44	356,371.43	2.499	64,440.00*	.452	288,002.43	2.019	3,929	.028		1	1	22 dn. s.pt.	6s.	11	52
Orange	42,970	1935	70,451.00	1.639	11,998.00	.279	57,500.00	1.338	953	.022				12	3	6	
Person	26,394	1935	45,470.00	1.723	10,430.00	.395	34,200.00	1.296	840	.032				2	1	1	
Chatham	26,785	1937	41,306.00	1.542	10,620.00	.396	30,000.00	1.120	686	.026				2	1	2	
Lee	26,561	1946	41,263.00	1.554	10,467.00	.394	30,000.00	1.130	796	.030				2		1	
Caswell	19,912	1944	29,610.00	1.487	8,925.00	.448	20,031.00	1.006	654	.033				2		1	
Pamlico (Sp.G.)	9,850	1949	29,169.00	2.961	8,331.00	.846	20,537.00	2.085	301	.030		D		2	1s.	1	10
Pasq-P-C-Chowan(Sp.G)	52,135	1942-43-37	112,703.22	2.162	32,689.00	.627	78,512.22	1.506	1,502	.029		1		7	3s.	7b.	20
Pasquotank	25,630	1942	50,301.00	1.963	9,831.00	.384	39,797.00	1.553	673	.026				4		4	
Perquiman	9,178	1943	18,962.74	2.066	5,735.00	.625	12,976.74	1.414	251	.027				1		1	
Camden	5,598	1943	12,651.06	2.260	4,674.00	.835	7,808.06	1.395	169	.030				1		1	
Chowan	11,729	1937	23,175.79	1.976	6,449.00	.550	16,317.79	1.391	409	.035				1		1	
Pender	18,508	1941	35,747.00	1.931	9,707.00	.524	25,444.00	1.375	596	.032	1			2	1	1	10
Pitt	69,942	1917	133,563.00	1.910	24,791.00	.355	106,595.00	1.524	2,177	.031		1		14s.	3s.	6	30
Randolph	61,497	1927	92,948.64	1.511	18,168.00	.295	73,479.64	1.195	1,301	.021		1		6	2	4	52
Richmond	39,202	1924	57,967.00	1.479	14,567.00	.372	42,278.00	1.078	1,122	.029		D		3	3	2	20
Robeson	89,102	1912	124,200.00	1.394	33,542.00	.376	87,220.00	.979	3,438	.039		1		7s.	4s.	3	30
Rockingham	69,629	1940	120,290.72	1.727	21,749.00	.312	96,983.72	1.393	1,558	.022	1			7	3	3	30
Rowan	82,817	1918	160,157.00	1.934	23,032.00	.278	135,507.00	1.636	1,618	.020		1		8s.	4	4ed.	41
Rutherford-Polk	56,486	1924-38	79,664.92	1.410	22,106.00	.391	56,234.92	.996	1,324	.023		1		4	3	3	30
Rutherford	45,091	1924	53,550.00	1.188	14,495.00	.321	37,950.00	.842	1,105	.025				3	2	2	
Polk	11,395	1938	15,900.00	1.395	5,811.00	.510	9,870.00	.866	219	.019				1	1	1	
Sampson	48,013	1913	72,043.68	1.501	18,998.00	.396	51,501.68	1.073	1,544	.032		1		5	2	2	20
Scotland	25,183	1943	70,175.00	2.787	12,179.00	.484	57,160.00	2.270	836	.033		1		4	2	2	20
Stanly	40,873	1937	68,434.42	1.674	13,258.00	.324	54,253.42	1.327	923	.023		1		3	1	2	20
Stokes	22,314	1931	53,015.21	2.376	9,686.00	.434	42,793.21	1.918	536	.024	1			2	1	1	10
Surry	48,205	1919	115,854.68	2.403	16,295.00	.338	98,417.68	2.042	1,142	.023		1		5	2	4	20
Transylvania	16,372	1937	34,299.00	2.095	7,654.00	.468	26,295.00	1.606	350	.021	1			2	1	1	10

DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES - FISCAL YEAR 1965-66

COUNTY, CITY OR DISTRICT	1960 POPULATION	DATE ORGANIZED	TOTAL BUDGET		SOURCE OF FUNDS AND AMOUNTS						PART TIME	FULL TIME PERSONNEL (Merit System)						DENT. WKS.
			AMOUNT	PER CAP.	STATE ALLOTMENT	PER CAP.	LOCAL APPROPRIATION	PER CAP.	FEDERAL ALLOTMENT	PER CAP.	H. D.	H. D.	OTH. MED. DIR.	P. H. N.	SANT.	CLERKS AND OTHERS	
Tyrrell-Wash	18,008	1937	$ 45,035.06	$ 2.501	$ 12,444.00	$ .691	$ 31,930.06	$ 1.773	$ 661	$ .037	1			2	1	2	16
Tyrrell	4,520	1937	10,029.00	2.219	4,451.00	.985	5,386.00	1.192	192	.042				1		1	
Washington	13,488	1937	24,622.00	1.825	7,153.00	.530	17,000.00	1.260	469	.035				1		1	
Union	44,670	1938	82,932.46	1.857	15,077.00	.338	66,429.46	1.487	1,426	.032		1		3	2	2	60
Vance	32,002	1920	62,728.75	1.960	13,396.00	.418	48,371.75	1.512	961	.030		1		3	1	2	20
Wake	169,082	1918	377,510.18	2.233	46,662.00*	.276	327,143.18	1.935	3,715	.022		1	1	20 dn. s.	8ds.	14b. d.	52d.
Warren	19,652	1945	39,099.67	1.990	9,441.00	.481	28,904.67	1.471	754	.038		D		2	1	1	10
Wayne	82,059	1920	151,070.00	1.841	27,516.00*	.335	121,006.00	1.475	2,548	.031		1		7s.	4s.	9t.	0
Wilkes	45,269	1920	44,474.62	.982	16,073.00	.355	27,255.62	.602	1,146	.025		1		3	1	2	20
Wilson	57,716	1916	121,120.00	2.099	20,665.00	.358	98,788.00	1.712	1,667	.029		1		5s.	3s.	3	20
Total Counties	4,524,008		10,515,647.18	2.324	1,597,853.00	.353	8,798,760.18	1.945	119,034	.026	13	48	7	576	280	376	1785
Rocky Mount	32,147		81,829.00	2.545	9,394.00	.292	71,469.00	2.223	966	.030		D		6s.	2	4b.	20
Combined Total	4,556,155		10,597,476.18	2.326	1,607,247.00	.353	8,870,229.18	1.947	120,000	.026	13	48	7	582	282	380	1805
Overbudgeted Funds			10,847.00		10,847.00												
Grand Total	4,556,155		$ 10,586,629.18	$ 2.323	$ 1,596,400.00	$ .350	$ 8,870,229.18**	$ 1.947	$ 120,000	$ .026	13	48	7	582	282	380	1805

*Includes funds for Training Centers (10 Centers - One Lab. Total $25,500) (Sp. G.) Special Grant.

**Local Appropriation includes balance (brought forward) of $470,404.30 from fiscal year 1964-65.

The breakdown of individual counties in Districts does not include any special funds, extra funds, or balances (local).

The State breakdown of individual counties in Districts does not include Retirement Incentive or Training Funds.

Personnel paid from Special Project funds not included.

D. - Service District - with Health Director
dn. - Public Health Nursing Director
ds. - Director of Sanitation Activities
s. - Public Health Nursing Supervisor & San. Supv.
v. - Veterinarian
i. - Public Health Investigator
pt. - Physical Therapist

b. - Bacteriologist
d. - Dentist
ed. - Health Educator
n. - Nutritionist
t. - Technician
a. o. - Admn. Officer

Ex. - Exclusive of
R. M. - Rocky Mount

PERTINENT INFORMATION ON LOCAL HEALTH DEPARTMENTS - FISCAL YEAR 1965-66

DEPARTMENTS	UNDER LOCAL GOV. RETIREMENT		CONTRACT TRAVEL PLAN	PER CAPITA BUYING INCOME 1964	PER CAPITA LOCAL APPROP.	DENTAL DEDUCTION	TYPE OF AUDIT	DAYS WORK WEEK	ON MINIMUM OF M. S. STAND. PAY PLAN	
Alamance	Yes	1 Co.	$ 10¢	$ 2.074	$ 2.209	$	Monthly	5	Yes	1 Co.
Alleg-Ashe-Watauga	Yes	3 Cos.	7¢ - 9¢		.989		Annual	5 Each		
Alleghany			7¢ - 9¢	1.445	1.008		Annual			
Ashe			7¢ - 9¢	1.191	.769		Annual			
Watauga			7¢ - 9¢	1.364	.911		Annual			
Anson	Yes	1 Co.	40 ∤ 4¢	1.181	2.054		Monthly	5½		
Avery	Yes	1 Co.	7¢	1.236	.899		Monthly	5		
Beaufort	Yes	1 Co.	Co. furnish cars	1.249	1.751	390.00	Monthly	5	Yes	1 Co.
Bertie			30 ∤ 5¢	1.026	1.363		Monthly	5½		
Bladen	Yes	1 Co.	7¢	1.071	1.294		Monthly	5		
Brunswick	Yes	1 Co.	7¢	1.173	1.844		Monthly	5		
Buncombe	Yes	1 Co.	flat	2.070	3.757		Monthly	5	Yes	1 Co.
Burke	Yes	1 Co.	20 ∤ 7¢	1.718	1.705		Monthly	5	Yes	1 Co.
Cabarrus	Yes	1 Co.	40 ∤ 5¢	1.867	2.048		Monthly	5		
Caldwell	Yes	1 Co.	7¢	1.533	.955		Monthly	5½		
Carteret	Yes	1 Co.	flat	1.703	1.474	134.00	Monthly	5½	Yes	1 Co.
Catawba-Lincoln-Alex	Yes	3 Cos.	35 ∤ 4¢		1.622	1.204.00	Annual	5 Each	Yes	3 Cos.
Catawba			35 ∤ 4¢	1.906	1.534		Annual			
Lincoln			35 ∤ 4¢	1.507	1.534		Annual			
Alexander			35 ∤ 4¢	1.402	1.534		Annual			
Cherokee-Clay-Graham	Yes	3 Cos.	30 ∤ 4¢		1.443		Monthly	5 Each	Yes	3 Cos.
Cherokee			30 ∤ 4¢	1.195	1.298		Monthly			
Clay			30 ∤ 4¢	1.033	1.125		Monthly			
Graham			30 ∤ 4¢	1.047	1.421		Monthly			
Cleveland	Yes	1 Co.	7¢	1.511	1.578		Monthly	5½	Yes	1 Co.
Columbus			15 ∤ 7¢	1.245	1.204		Monthly	5		
Craven	Yes	1 Co.	30 ∤ 4¢	1.518	1.628		Annual	5		
Cumberland	Yes	1 Co.	35 ∤ 5¢	1.568	1.598		Monthly	5	Yes	1 Co.
Currituck	Yes	1 Co.	30 ∤ 4¢	1.501	2.457		Monthly	5		
Dare	Yes	1 Co.	8¢	1.514	4.026		Annual	5		
Davidson			8¢	1.867	1.159		Monthly	5½		
Davie-Yadkin	Yes	2 Cos.	7¢		1.135		Monthly	5 Each	Yes	2 Cos.
Davie			7¢	1.611	1.156		Monthly			
Yadkin			7¢	1.485	.835		Monthly			
Duplin	Yes	1 Co.	8¢	1.111	1.413		Monthly	5		
Durham	Yes	1 Co.	30 ∤ 6¢	2.193	2.875		Monthly	5	Yes	1 Co.
Edgecombe	Yes	1 Co.	8¢	1.196	1.575		Annual	5		
Forsyth			Graduated	2.313	2.286		Monthly	5		
Franklin			70 flat	1.159	1.296		Monthly	5		
Gaston	Yes	1 Co.	8¢	1.788	2.126		Monthly	5		

PERTINENT INFORMATION ON LOCAL HEALTH DEPARTMENTS - FISCAL YEAR 1965-66

DEPARTMENTS	UNDER LOCAL GOV. RETIREMENT	CONTRACT TRAVEL PLAN	PER CAPITA BUYING INCOME 1964	PER CAPITA LOCAL APPROP.	DENTAL DEDUCTION	TYPE OF AUDIT	DAYS WORK WEEK	ON MINIMUM OF M. S. STAND. PAY PLAN
Granville	Yes 1 Co.	$ 30 ∤ 4¢	$ 1,409	$ 1,401	$	Monthly	5	
Greene	Yes 1 Co.	125 Mo. N.O. 30 ∤ 4¢	962	1.881		Annual	5	
Guilford	Yes 1 Co.	Graduated	2,351	2.722		Monthly	5	
Halifax	Yes 1 Co.	30 ∤ 4¢	1,215	2.112		Monthly	5	
Harnett	Yes 1 Co.	35 ∤ 7¢	1,269	1.256		Monthly	5	
Haywood		8¢	1,819	1.445		Monthly	5	Yes 1 Co.
Henderson	Yes 1 Co.		1,784	1.618		Monthly	5	
Hertford-Gates	Yes 2 Cos.	30 ∤ 4¢		1.524		Monthly	5 Each	Yes 2 Cos.
Hertford			1,259	1.330				
Gates			1,080	1.633				
Hoke	Yes 1 Co.		1,119	2.155				Yes 1 Co.
Hyde	Yes 1 Co.	30 ∤ 4¢	1,162	2.198		Monthly	5	
Iredell	Yes 1 Co.	7¢	1,695	1.198		Monthly	5	
Jackson-Macon-Swain	Yes 3 Cos.	30 ∤ 6¢		1.379		Monthly	5 Each	
Jackson			1,362	.932				
Macon			1,247	1.035				
Swain			1,159	1.522				
Johnston	Eff. 1/1/66 Yes 1 Co.	7¢	1,179	.956		Monthly	5½	
Jones		30 ∤ 4¢	961	1.558		Monthly	5	
Lenoir	Yes 1 Co.	20 ∤ 7¢	1,498	1.276		Monthly	5	
McDowell	Yes 1 Co.	30 ∤ 4¢	1,475	1.202		Monthly	5	
Madison	Yes 1 Co.	7¢	1,245	1.656		Monthly	5	
Martin	Yes 1 Co.	10 ∤ 7¢	1,094	1.752		Monthly	5	
Mecklenburg	Yes 1 Co.		2,461	4.936			5	
Mitchell-Yancey	Yes 2 Cos.	7¢		.864	134.00	Monthly	5 Each	Yes 2 Cos.
Mitchell			1,299	.690				
Yancey			1,219	.714				
Montgomery		30 ∤ 4¢	1,370	1.261		Monthly	5	
Moore	Yes 1 Co.	7¢	1,693	1.347		Monthly	5	Yes 1 Co.
Nash	Yes 1 Co.	30 ∤ 4¢	1,439	1.410		Monthly	5	Yes 1 Co.
New Hanover		7¢	1,858	2.583		Annual	5	
Northampton	Yes 1 Co.	7¢	1,013	1.700		Monthly	5	
Onslow	Yes 1 Co.	7¢	1,581	.928		Monthly	5	
Orange-P-C-Lee-Caswell	Yes 5 Cos.	30 ∤ 4¢		2.019		Monthly	5 Each	
Orange			2,026	1.338				
Person			1,289	1.296				
Chatham			1,327	1.120				
Lee			1,635	1.130				
Caswell			1,151	1.006				
Pamlico	Yes 1 Co.	20 ∤ 7¢	1,161	2.085		Annual	5	

PERTINENT INFORMATION ON LOCAL HEALTH DEPARTMENTS - FISCAL YEAR 1965-66

DEPARTMENTS	UNDER LOCAL GOV. RETIREMENT	CONTRACT TRAVEL PLAN	PER CAPITA BUYING INCOME 1964	PER CAPITA LOCAL APPROP.	DENTAL DEDUCTION	TYPE OF AUDIT	DAYS WORK WEEK	ON MINIMUM OF M. S. STAND. PAY PLAN
Pasq-Perq-C-Chowan	Yes 4 Cos.	$ flat	$	$ 1.506	$ 282.00	Annual	5 Each	
Pasquotank		flat	1,561	1.533		Annual		
Perquimans		flat	1,214	1.414		Annual		
Camden		flat	1,153	1.395		Annual		
Chowan		flat	1,220	1.391		Annual		
Pender	Yes 1 Co.	8¢	1,023	1.375		Monthly	5	
Pitt	Yes 1 Co.	15 ≠ 7¢	1,324	1.524		Monthly	5	
Randolph		8¢	1,818	1.195		Annual	5	
Richmond		7¢	1,531	1.078		Monthly	5	
Robeson	Yes 1 Co.	7¢	1,056	.979		Monthly	5	
Rockingham	Yes 1 Co.	100 Mo.H.D. 35 ≠ 4¢	1,701	1.393		Monthly	5	Yes 1 Co.
Rowan	Yes 1 Co.	7¢	1,871	1.636		Monthly	5½	Yes 1 Co.
Rutherford-Polk	Yes 2 Cos.	40 ≠ 4¢		.996		Annual	5 Each	
Rutherford		40 ≠ 4¢	1,556	.842		Annual		
Polk		40 ≠ 4¢	1,810	.866		Annual		
Sampson	Yes 1 Co.	7¢	1,130	1.073		Monthly	5	
Scotland	Yes 1 Co.	flat & graduated	1,167	2.270		Monthly	5	
Stanly		30 ≠ 4¢	1,654	1.327		Monthly	5½	
Stokes	Yes 1 Co.	30 ≠ 8¢	1,339	1.918		Monthly	5	Yes 1 Co.
Surry	Yes 1 Co.	7¢	1,593	2.042		Monthly	5	Yes 1 Co.
Transylvania	Yes 1 Co.	7¢	1,681	1.606		Monthly	5	Yes 1 Co.
Tyrrell-Washington	Yes 2 Cos.	30 ≠ 4¢		1.773		Annual	5 Each	Yes 2 Cos.
Tyrrell		30 ≠ 4¢	1,016	1.192				
Washington		30 ≠ 4¢	1,268	1.260				
Union		7¢	1,461	1.487		Annual	5	
Vance	Yes 1 Co.	30 ≠ 4¢	1,385	1.512		Monthly	5	Yes 1 Co.
Wake	Yes 1 Co.	8¢	2,137	1.935		Monthly	5	
Warren		30 ≠ 4¢	997	1.471		Monthly	5	
Wayne	Yes 1 Co.	8¢	1,366	1.475	750.00	Annual	5	
Wilkes	Yes 1 Co.	8¢	1,360	.602		Monthly	5	
Wilson	Yes 1 Co.	125 Mo.H.D. 7¢	1,473	1.712		Monthly	5	
City of Rocky Mount		flat	1,963	2.223		Monthly	5	Yes 1 City
Total	85 Cos.		$ 1,704*	$ 1.947**	$2.894.00			33 Cos. 1 City

*Per capita buying income for state of N. C.

**Per capita local appropriation for health. for counties excluding city $1.945.

AMOUNT PAID FOR DIRECT SERVICES - FISCAL YEAR 1964-65

DEPARTMENTS	CANCER	CHRONIC ILLNESS	HEART	CRIPPLED CHILDREN	M C H	MOSQUITO CONTROL	TOTAL
Alamance	$ 3,256.35	$ 14,294.94	$	$ 30,610.17	$ 9,019.82	$	$ 57,181.28
Alleg-Ashe-Watauga		14,170.29					14,170.29
Alleghany	80.61			1,483.62	945.84		2,510.07
Ashe	442.44			1,531.61	93.75		2,067.80
Watauga	978.00			6,311.02	974.50		8,263.52
Anson	318.00			14,564.39	1,031.25		15,913.64
Avery	120.00			4,985.93	45.00		5,150.93
Beaufort	1,967.16	8,708.15		13,767.01	1,522.50	6,585.00	32,549.82
Bertie	3,891.91	5,121.16		6,931.26	4,723.82	2,770.00	23,438.15
Bladen	2,710.56			12,642.54	4,408.20	3,000.00	22,761.30
Brunswick	1,187.20	7,339.39		13,260.95	3,993.80	8,432.00	34,213.34
Buncombe	6,137.13			46,163.85	22,102.89		74,403.87
Burke	287.11	12,768.47		13,098.45	1,404.38		27,558.41
Cabarrus	1,378.21	8,498.44		20,171.00	3,190.00		33,237.65
Caldwell	1,733.82			20,411.30	1,451.02		23,596.14
Carteret	648.01			4,278.37	168.75	51,877.00	56,972.13
Catawba-Lin-Alex							
Catawba	880.19			14,227.85	2,637.36	1,000.00	18,745.40
Lincoln	512.24			5,337.56	2,638.65		8,488.45
Alexander				4,137.72	2,059.73		6,197.45
Cherokee-Clay-Graham							
Cherokee	268.70			1,931.29	845.00		3,044.99
Clay	20.66			1,417.44	727.00		2,165.10
Graham				1,430.65			1,430.65
Cleveland	2,861.78			17,459.25	972.50		21,293.53
Columbus	2,496.21			15,962.90	7,198.40		25,657.51
Craven	3,160.98	12,739.05		14,924.98	1,746.52	4,207.00	36,778.53
Cumberland	6,148.28			32,530.13	17,783.14	3,000.00	59,461.55
Currituck				928.16	2,930.86		3,859.02
Dare	208.44			2,822.96	581.65	12,282.00	15,895.05
Davidson	878.75			19,913.11			20,791.86
Davie-Yadkin							
Davie	107.48			2,296.04	26.25		2,429.77
Yadkin				6,957.35	5,884.61		12,841.96
Duplin	1,307.46			15,482.13	5,031.58		21,821.17
Durham	23,189.69	3,896.72		32,788.14	38,291.08	1,000.00	99,165.63
Edgecombe	2,524.10			20,573.71	4,327.26	3,000.00	30,425.07
Forsyth	3,477.52	13,772.32		35,408.52	10,189.45	1,000.00	63,847.81
Franklin	3,594.29			5,896.39	2,062.24		11,552.92
Gaston	3,394.28			28,994.03	5,340.71		37,729.02

AMOUNT PAID FOR DIRECT SERVICES - FISCAL YEAR 1964-65

DEPARTMENTS	CANCER	CHRONIC ILLNESS	HEART	CRIPPLED CHILDREN	M C H	MOSQUITO CONTROL	TOTAL
Granville	$ 3,983.02	$	$	$ 9,218.30	$ 3,797.36	$	$ 16,998.68
Greene	1,004.30		899.41	6,957.39	2,952.74	1,000.00	12,813.84
Guilford	10,413.46			50,931.50	11,765.53		73,110.49
Halifax	4,587.09		3,166.16	27,354.72	4,142.28	1,000.00	40,250.25
Harnett	8,319.97			30,818.92	5,574.18		44,713.07
Haywood	847.60			9,512.71			10,360.31
Henderson	2,818.20			10,645.48	1,871.45		15,335.13
Hertford-Gates							
Hertford	306.28			6,188.10	656.25	1,500.00	8,650.63
Gates	649.88			1,459.46	36.75	500.00	2,646.09
Hoke	1,219.99			4,853.69	1,692.16		7,765.84
Hyde				570.59	430.99	4,466.00	5,467.58
Iredell	1,479.12			24,895.00	652.50		27,026.62
Jackson-Macon-Swain							
Jackson				4,999.72	320.00		5,319.72
Macon	333.88			3,729.60	1,679.25		5,742.73
Swain				1,559.76	343.00		1,902.76
Johnston	1,582.23			31,867.42	2,060.00		35,509.65
Jones	323.67			7,173.79	575.00	1,595.00	9,667.46
Lenoir	3,167.41			22,584.47	3,408.39	2,600.00	31,760.27
McDowell				11,648.29	131.25		11,779.54
Madison	1,577.96			10,282.29	1,519.85		13,380.10
Martin	3,925.90			7,103.12	6,675.50	2,737.00	20,441.52
Mecklenburg	13,339.57		13,099.03	80,187.56	3,327.50	1,000.00	110,953.66
Mitchell-Yancey							
Mitchell				4,313.23	36.00		4,349.23
Yancey	384.19			4,804.33	1,201.16		6,389.68
Montgomery	153.98			5,673.92	2,020.90		7,848.80
Moore	221.13			11,547.98	4,995.96		16,765.07
Nash	10,409.75			28,716.97	2,125.27		41,251.99
New Hanover	4,305.36	13,795.38		13,265.94	17,639.80	19,082.00	68,088.48
Northampton	4,168.16			4,973.92	1,651.25		10,793.33
Onslow	289.84			12,941.07	144.75	57,783.00	71,158.66
Orange-Person-C-L-Caswell		6,048.52	19,207.76				25,256.28
Orange	4,528.31			23,496.99	13,061.13		41,086.43
Person	3,224.53			9,906.74	1,318.71		14,449.98
Chatham	1,187.43			7,569.50	6,918.91		15,675.84
Lee	2,071.52			13,030.20	3,497.90		18,599.62
Caswell	1,692.67			6,150.35	2,166.41		10,009.43
Pamlico	1,148.62			2,420.21	465.00	69,123.00	73,156.83

AMOUNT PAID FOR DIRECT SERVICES - FISCAL YEAR 1964-65

DEPARTMENTS	CANCER	CHRONIC ILLNESS	HEART	CRIPPLED CHILDREN	M C H	MOSQUITO CONTROL	TOTAL
Pasq-Perq-C-Chowan	$	$ 4,960.07	$	$	$	$	$ 4,960.07
Pasquotank	1,319.14			1,969.79	4,925.55	2,755.00	10,969.48
Perquimans	854.92			2,077.75	1,129.00	1,040.00	5,101.67
Camden	126.74			2,026.47	384.55		2,537.76
Chowan	194.20			5,244.93	4,863.79	3,357.00	13,659.92
Pender	1,941.24			5,901.98	1,916.57	1,059.00	10,818.79
Pitt	7,470.13	9,422.46		31,468.64	12,091.70	3,000.00	63,452.93
Randolph	485.77	7,589.21		14,003.17	1,405.45		23,483.60
Richmond	571.52			20,168.91	2,551.80		23,292.23
Robeson	6,731.71			47,938.96	19,858.43		74,529.10
Rockingham	1,758.68			20,830.22	2,321.78		24,910.68
Rowan	3,716.38	1,675.00		27,124.18	2,130.00	1,000.00	35,645.56
Rutherford-Polk		11,569.22					11,569.22
Rutherford	2,156.86			14,457.60	1,950.50		18,564.96
Polk	4,949.29			2,618.14	1,476.00		9,043.43
Sampson	7,469.71			14,560.81	4,200.75	3,000.00	29,231.27
Scotland	3,419.68			9,933.98	1,262.50		14,616.16
Stanly	839.45			6,297.66	3.75		7,140.86
Stokes	208.20			7,717.72	2,570.80		10,496.72
Surry	1,167.43	9,732.79		15,228.40	7,112.41		33,241.03
Transylvania	80.61			7,091.26	1,139.43		8,311.30
Tyrrell-Washington							
Tyrrell	1,531.58			1,313.34		1,215.00	4,059.92
Washington	1,600.27			4,611.23	160.78	3,018.00	9,390.28
Union	1,656.79			10,117.83	846.50		12,621.12
Vance	5,006.57			12,113.71	1,550.39		18,670.67
Wake	9,882.84	13,105.04		59,697.28	18,143.19		100,828.35
Warren	4,298.89		4,591.48	10,763.32	4,687.67		24,341.36
Wayne	3,129.25			18,704.77	1,477.50	3,000.00	26,311.52
Wilkes	545.25			13,309.69			13,854.94
Wilson	1,783.82	11,044.77		11,054.64	5,002.43	3,000.00	31,885.66
Non Res.				90.99	1,210.00	3,000.00	4,300.99
Total	$ 248,729.50	$ 190,251.39	$ 40,963.84	$ 1,403,422.38	$ 383,577.81	$ 288,983.00	$ 2,555,927.92

DENTAL HEALTH DIVISION

July 1, 1964-June 30, 1966

The activities of the Dental Health Division during the 1964-66 biennium have been directed toward the achievement of its overall objective—the promotion of better dental health for the people of North Carolina through prevention, education, diagnosis, treatment, research, and evaluation. The division was engaged in the following activities:

Prevention

Due to the increased emphasis on fluoridation placed by the Dental Health Division, twenty municipalities began fluoridating their water supplies during the biennium. On June 30, 1966, eighty-eight towns in North Carolina were fluoridating their water supplies. This represents 64% of the population served by municipal or sanitary district water supplies (30% of the total population).*

The division's field staff increased its use of topical fluoride treatments for indigent school children by about 400% (from 6,315 children treated in the 1962-64 biennium to 24,463 children treated in the current biennium).

Education

The division's puppet show (Little Jack) presented 841 performances to 214,132 children in the public schools of North Carolina.

In an effort to improve dental health information taught by classroom teachers, continuing education programs for student teachers and classroom teachers were presented in eleven colleges and teacher seminars in seventeen counties.

Tests were conducted at the North Carolina Advancement School to determine the effectiveness of methods of presenting dental health information in the classroom. As a result, materials and teaching methods of the division are being re-evaluated and revised.

A dental health attitudes test was developed with the assistance of the Research Design Department, N. C. Advancement School and the U. N. C. School of Public Health.

Diagnosis and Treatment

The treatment of indigent school children and referral/follow-up continued to be an important part of the school program conducted by the division's field staff, with more emphasis being given to primary preventive measures.

The North Carolina State Board of Dental Examiners granted permission for senior dental students from the U. N. C. School of Dentistry to work in Head Start programs under the supervision of the Dental Health Division. These students provided dental care to indigent pre-school children in four counties.

*Based on 1966 estimated population of North Carolina.

A joint dental health program was begun in Haywood County. This project was planned by the school system, the dental society, the county health department, and the Dental Health Division. Funds to support the project came from the Elementary-Secondary Education Act (Title I).

Research and Evaluation

Two monographs, "Life Cycle of Human Teeth", and "The Natural History of Dental Diseases", were published during the biennium. Data for these publications came from the study, "Natural History of Dental Disease in a State Population". The Dental Health Division staff participated with the U. N. C. School of Public Health in this project.

A grant from the U. S. Public Health Service is supporting a project, "A Study of the Effectiveness of Various Topical Fluoride Solutions in the Reduction of Dental Caries". Through this study the division hopes to find a more efficient method of providing topical fluoride applications to masses of school children.

The three-year continuing education program on oral cancer detection was completed. Under this state-wide program for private-practicing dentists, sponsored by a special U. S. Public Health Service grant, thirty-four seminars were presented. Sixty-five percent of the private-practicing dentists attended.

A pre-fluoride survey of Asheville City school children was conducted by division personnel in April, 1966. The data from this survey will be compared with post-fluoride data (about ten years later) to show the percentage of reduction in dental decay.

A seven-year study to determine the effectiveness of fluoride supplements in reducing dental decay in elementary school children, was initiated in three North Carolina school systems. The Dental Health Division and the U. N. C. School of Public Health are conducting this study.

Evaluation procedures were carried out in all phases of the program to determine their effectiveness, including areas such as:

1. Development and revision of record forms
2. Readability, effectiveness, and appearance of education materials
3. Effectiveness of visual aids in teaching dental health
4. Referral and follow-up programs
5. Income and salary study of private and public health dentists
6. Pre-service and inservice training programs for teachers
7. Fluoridation surveillance

Training

The division devoted more time to planning and conducting training programs due to changes in dental public health concepts and practices. These training programs were extended not only to its own staff but to private-

practicing dentists, school personnel, and community leaders. The following programs were initiated in the 1964-66 biennium:

1. A Workshop on Dental Prepayment Plans for private-practicing dentists in North Carolina.
2. A Residency Training Program was approved by the Council on Education of the American Dental Association, and a five-year residency training grant was awarded by the U. S. Public Health Service. Training for the first Dental Public Health resident was completed during the biennium.
3. Field training was provided for four graduates from the Schools of Public Health of the Universities of Michigan and North Carolina.
4. Continuing education courses were given to all field staff during the biennium. These courses were presented by the U. N. C. School of Public Health and supported by U. S. Public Health Service Grants.
5. A Conference on Fluoridation, held in Greensboro in June 1966, brought together representatives of many groups (public health, dentists, physicians, water-works personnel, and community leaders) interested in the technical, professional, community educational, and organizational aspects of fluoridation.

Budget

There was no appreciable change in the "A" Budget Appropriation and no additions to the "B" Budget during the past several biennia. The U. S. Public Health Service made dental formula grants available to the states for the first time. North Carolina received a grant of $10,000 for the 1964-65 fiscal year and $26,300 for the 1965-66 fiscal year. The new and expanded programs of the division have been made possible by the dental formula grant.

DIVISION OF DENTAL HEALTH

PERFORMANCE STATISTICS

	1964-65	1965-66
Average Number of Dentists	20.04	21.56
Average Number Total Personnel (including dentists)	33.02	34.79
Number of Counties Receiving Dental Programs	47	43
Number of Weeks, Services to Counties	900	944
Number of Weeks, Services to Institutions, etc.	61	70
Number of Puppet Show Performances	430	411
Number of Children Attending Puppet Shows	131,444	106,542
Number of Lectures Given in Schools	4,034	3,514
Number of Children Attending Lectures	117,692	96,469
Number of Mouth Inspections	113,939	106,508
Number of Children Needing Dental Care	69,980	58,852
Number of Children Referred to Private Practitioners	40,076	32,977
Number of Indigent Children Treated	22,307	23,772

ITEMIZED TREATMENTS

	1964-65	1965-66
Amalgam Fillings	19,552	21,667
Silicate Fillings	1,346	1,541
Cement Bases	10,174	11,241
Prophylaxes	18,076	20,347
Topical Fluoride Treatments	10,664	13,821
Teeth Extracted (Deciduous)	15,218	13,209
Teeth Extracted (Permanent)	5,344	4,858
Silver Nitrate Treatments	8,003	8,545
Other Operations	1,267	1,202
Total Operations	89,644	96,431

PERSONAL HEALTH DIVISION

July 1, 1964-June 30, 1965

Nutrition Section

One of the section's major emphases during the biennium was the strengthening of the dietary consultation given to hospitals and child caring institutions that do not employ dietitians to direct their food services. Because of the demand from hospital administrators indicated through a mailed questionnaire, a group meeting was developed to organize group training for food service supervisors and cooks. Consultants have conducted sessions for groups of food service supervisors on food purchasing, food preparation, menu planning, and food service merchandising. They have coordinated and acted as preceptors for the American Dietetic Association Correspondence Course for Food Service Supervisors. This represents a cooperative effort of the North Carolina Hospital and Dietetic Associations and the Nutrition Section of the State Board of Health, as well as continued activities in the areas of special programming for metabolic disease, heart disease, diabetic disease, and other maternal and child health programs. This section has maintained cooperation in program development with the Department of Public Instruction, the State Board of Public Welfare, and the Department of Agriculture.

Nursing Home Section

This section's activities have been increased in the past biennium because of legislation which authorizes the Nursing Home Section to license combination homes for the aged and infirm and nursing homes. As a result of this, 26 such homes have been licensed during the past two years. The Nursing Home Section has approved for construction 21 new nursing homes, 4 conversions and 12 additions. Twenty-seven of these projects have been completed. At present the Nursing Home Section is involved in cooperative planning with the Health Insurance Benefits Section for the certification of extended care facilities.

Health Insurance Benefits Section

This is the newest section of the Personal Health Division and was created to implement the Medicare legislation. To date this section has worked diligently in the development of staff and the initial implementation of the Medicare Act. To date as a result of the action of this section, 90 percent of the general hospital beds in North Carolina are certified with Medicare and the major portion of the task in Medicare will be approached in the coming biennium. They have developed working relationships with the North Carolina Medical Society, North Carolina Hospital Association, other segments of the State Board of Health, and the fiscal intermediaries such as Blue Cross and Pilot Life Insurance Company. They also have developed cooperative mechanisms with Medical Care Commission and the North Carolina Board of Pharmacy.

Crippled Children's Section

During the past biennium the Crippled Children's Section has increased their programming to include cystic fibrosis and convulsive seizure service.

Their services now provide some 46 orthopedic clinics, 7 heart and rheumatic fever clinics, 2 cystic fibrosis clinics, 3 convulsive seizure clinics, 7 speech and hearing centers, and 4 centers for cardiac surgery. At the beginning of the biennium the section began supporting the cleft palate and speech rehabilitation center at North Carolina Memorial Hospital, and this is one of the prime developments of the biennium. They cooperatively developed with the Chronic Disease Section programs for neurologic and sensory disease and convulsive seizure services so that there now are 3 such centers functioning. There has been a cooperative arrangement with the Maternal and Child Health Section in the development of services for the mentally retarded.

Chronic Disease Section

This section is providing a home care program, a diabetic screening program, neurologic and sensory disease program. The two primary developments in the biennium were the development of the new mechanisms of diabetic screening using automated equipment, and secondly, the development of the neurologic and sensory disease clinics through cooperation of the University of North Carolina and Duke University Schools of Medicine.

This section is maintaining its program in detection, diagnosis, treatment and education in cancer control. They have developed several educational programs in coordination with the Division of Dental Health of the State Board of Health and the North Carolina School of Dentistry. The primary aim of these programs was to inform dentists of the latest techniques and methods of detecting oral cancer with special reference to the use of oral cytology.

The heart disease control program maintains as its objectives professional education, assistance in diagnosis and treatment, county project demonstration and assistance in research funding.

Maternal and Child Health Section

In addition to carrying out its functions of the past, the Maternal and Child Health Section has developed over the preceding biennium three important improvements in programming. The first important improvement was the addition and development in collaboration with the Laboratory Division of a screening program for metabolic diseases. Within the first six months of operation this program identified two patients with phenylketonuria out of the first 20,000 patients screened. This in itself would pay for the program for the first two years of operation. The second major development was the development of The Maternity and Infant Care Projects in Halifax, Wayne, and Warren Counties. These projects are model projects for the demonstration of comprehensive maternity and infant care and will serve as guidelines for the development of future programming. The third important development was the expansion of the mental retardation program so that at this time there is developmental evaluation available for every potentially retarded child in North Carolina within fifty miles of his home. This program in the past year served some 1600 patients which would be approximately 80 percent of the actual need of North Carolina's population. In addition to this there were some 30 supervisory clinics developed for the supervision of well children and identification of abnormal children.

SANITARY ENGINEERING DIVISION

July 1, 1964-June 30, 1966

The Sanitary Engineering Division is responsible for the development and coordination of non-medical activities of the State Board of Health in the field of environmental sanitation. These activities are administered through three Sections within the Division.

The Division's objectives have been and continue to be the improvement of environmental conditions that effect the health and comfort of the people of the State, and to coordinate with local health departments the enforcement of General Statutes relating to sanitation. To accomplish these objectives the personnel work with representatives of industry, organized community groups, professional groups, municipal and county officials and with a large number of other agencies.

As has been mentioned in previous reports, rapid changes are taking place in our way of living, which have focused attention on a number of environmental problems. With limited personnel, we have attempted to meet these emerging problems, but limited resources have prevented us from adequately meeting the demands placed upon us. As an example, the State Air Hygiene Act was passed in 1963 by the General Assembly, but no funds have been appropriated to provide any personnel or to implement this program. With the rapid expansion of urban areas, the development of new industry in the State, and the expansion of industry, requests are being constantly received for assistance in air pollution control activities. We have been able to give only token assistance to the people of the State in connection with air pollution problems.

Through the cooperation of the Public Health Service in making grants available to local communities, study programs in air pollution were begun in the counties of New Hanover, Guilford, Rowan, Mecklenburg, Durham, Gaston, Buncombe, Henderson, Transylvania and Haywood during the biennium. As these local programs develop to the point of the establishment of regulations, State aid and guidance will be needed.

The problem of the development of community water supplies continues to be one of our major problems. Because of urban expansion around the fringe areas of municipalities, the enormous expansion in the development of mobile home parks and residential sub-divisions have increased the number of public water supplies. It is the legal responsibility of the State Board of Health to approve these water supplies, and we find that many have been installed without our knowledge and without approval. Request will be made to the forthcoming General Assembly for additional personnel to enable us to fulfill this responsibility.

In the same manner that the community water supplies have developed, enormous expansion in refuse and solid waste disposal continues. Consider-

able effort has been put forth by our staff in working with the municipalities and counties in an effort to find ways and means of handling the uncontrolled disposal of garbage and refuse throughout the State.

During the 1965 session of the General Assembly, we were interested in three pieces of legislation in the environmental health field . . . the proper disposal of sewage from boats on inland lakes, the expansion of the statute relating to sanitary districts which will make it possible for certain areas to petition for the creation of sanitary districts, and legislation which transferred legal authority for the shellfish sanitation program from the Department of Conservation and Development to the State Board of Health. All three of these pieces of legislation were adopted.

A brief summary of some of the major activities and accomplishments of the three sections follows:

SANITATION SECTION

Section personnel continued their primary responsibility of encouraging and assisting the local health departments in conducting environmental sanitation programs consistent with the needs and capabilities of the individual counties. This program includes the enforcement of State and local laws and regulations. Experience during the biennium indicates an increasing need for up-grading the qualifications and training of local sanitation personnel and improvement in the supervision provided in the local health departments. Better planning and execution of county programs are needed.

In Milk Sanitation, North Carolina maintained its place as top state in the U. S. Public Health Service listing of communities maintaining milk supplies rating over 90%. The problem of pesticide residues in milk was dramatized in the summer of 1964 when three plant-producer farms were taken off the market by joint action of local health departments and the North Carolina Department of Agriculture due to the presence of pesticides. An Ad Hoc Interagency Committee on Pesticides in milk was formed by the North Carolina Agricultural Extension Service and we cooperated in this program, which has been very effective. The economic trend towards fewer and larger dairies and plants continues. New plants were put in operation by Sealtest Foods in Asheville and Pet Dairy Products in Charlotte. At the end of 1965, only seven retail raw dairies remained in North Carolina, and 99.9% of the market milk was pasteurized. A new innovation in milk processing and distribution was begun during the biennium through the manufacture of plastic milk containers by two North Carolina blow-molding plants. These containers were fabricated for single use by milk plants. Subsequently, several milk plants added in-plant blow-molding milk container fabricating equipment. The Public Health Service Milk Ordinance was revised in 1965, this being the ordinance in effect throughout the counties in North Carolina. Assistance was given to the local health departments in connection with this program, and in addition a sampling program was developed, which among other things, will reduce unnecessary duplication of sampling by individual counties. Samples were collected from six sampling stations across the State for determination of radioactivity in milk. This work was done by the Laboratory Division. This program was suspended for a while, but was resumed in May 1966.

In the field of Food, Lodging and Institutional Sanitation, Regulations Governing the Sanitation of Meat Markets, Abattoirs, Frozen Food Locker Plants, and Poultry Processing Plants, and Rules and Regulations Governing the Sanitation of Private Hospitals, Nursing and Rest Homes, Sanitariums, Sanatoriums and Educational and Other Institutions were revised and up-dated. Work is being continued on the up-dating of other regulations. The North Carolina School Food Service Sanitation Manual was issued during the biennium. This publication was a joint effort with School Food Service of the North Carolina Department of Public Instruction. We participated in the activities of the Committee on Milk and Food Sanitation of the Conference of State Sanitary Engineers with particular attention being given to work with the National Sanitation Foundation's Joint Committee on Food Equipment Standards, their special committee on the development of an Installation Manual for Food Service Equipment, and attended conference with nine other national health organizations sponsored by the National Restaurant Association. These groups are working on the development of uniformity in sanitation standards throughout the country.

In cooperation with representatives of two major supermarket chains, several standard plans for their meat markets were reviewed and modernized.

In Shellfish Sanitation, the 1965 General Assembly transferred funds and authority from the Department of Conservation and Development to the State Board of Health. Subsequently a special allocation of funds was received to permit the purchase and operation of boats, a service formerly provided by Conservation and Development. A survey of our program by the Public Health Service indicated an over-all program rating of 92.8%, which is one of the highest in the country. It is becoming apparent, however, that present personnel and facilities will not be able to properly handle the increased work which was occasioned by the expansion of the surveillance of shellfish water from 44,000 acres to 1,400,000 acres. Proposed sanitation regulations for the scallop industry were prepared and discussed with members of the industry, but this group did not endorse the regulations.

In Migrant Labor Sanitation Activities, good results were obtained in promoting compliance with the 1963 Act Regulating the Sanitation of Agricultural Labor Camps. Excellent cooperation has been received from the local health officials, the growers, and representatives of the Employment Security Commission. In 1965, the North Carolina Council of Churches Migrant Project was funded by the Office of Economic Opportunity. Assistance has been given to the project director in employing sanitarian assistants for local areas, establishing policies and procedures, and orienting and training of key personnel.

In General Sanitation Activities, a survey of on-site school water supply and sewerage system in all counties of the State was completed during the summer of 1965. The total population of 1123 schools with on-site sewerage systems was 475,168. Reports and recommendations for needed improvements were provided each school superintendent and the Division of School Planning of the North Carolina Department of Public Instruction, which assisted us in this cooperative project. A follow-up survey indicates that considerable improve-

ment has already been made, with only 247 schools still needing major improvements. A special survey and study was made of community water systems having 10 or more connections in 14 counties. This survey of these 14 selected counties revealed 364 community water supplies having an estimated population of 60,215 people. Many of these supplies did not meet the requirements of the State Board of Health.

In Educational and Training Activities, a manual for sanitarians' orientation courses was developed and is being used by the six training centers for newly employed men. Two six-weeks' courses on the Principle and Practice of Sanitation were conducted by the Continued Education Services of the School of Public Health. Twenty-four new sanitarians attended these courses. Other training courses provided were, Training Methods and Aids, at which 14 men attended; Epidemiology and Control of Food Borne Disease, 20 men in attendance; and, the Planning, Supervision and Evaluation of Sanitation Programs, which 34 men attended. A number of successful foodhandlers' schools were held during the biennium and the first one ever held on the island of Ocracoke took place during this period. Assistance was given the North Carolina Department of Community Colleges in the development of a pattern for foodhandler instruction in the eastern region of the State. A number of conferences were held with representatives of the School of Public Health at the University, with the view of developing long range sanitarian training plans. This continues to be one of our most pressing needs.

INSECT AND RODENT CONTROL SECTION

This Section is responsible for the administration of three programs and carrying out the diverse activities that are included in their objectives. The Insect and Rodent Control Program involves the training of local personnel, assisting local health departments and municipalities with problems involving arthropods and rodents, municipal and rural refuse handling, promotion and helping with the environmental sanitation surveys, enforcing impounding water regulations, investigating complaints, and assisting with problems involving private water supplies and excreta disposal. The Salt Marsh Mosquito Control Program consists of assistance to local health departments, municipalities, and mosquito control districts in planning, supervising, operating and promoting salt marsh drainage and dyking projects, and in the disbursement of funds provided by the Legislature for assistance to local communities engaged in mosquito control. The Bedding Sanitation Program consists of inspections of bedding manufacturing plants, sanitizers, and retail establishments to assure that the bedding made or sold in North Carolina complies with the requirements of good sanitation.

Personnel in the Section devoted more time to the Salt Marsh Mosquito Control Program than other activities. During the biennium a total of $520,914 in State funds was given to local communities. This was matched by $43,767 from local sources. Thirty-one local health departments, 19 municipalities, and one mosquito control district participated. Twelve draglines worked on drainage and dyking during the biennium, and during this period cut 287 miles of canals, cleaned out 22 miles of existing canals, and constructed 13 miles of

dykes that inundated a total of 2,000 acres of salt marsh land. Our staff assisted local personnel by giving engineering consultation, explored the salt marshes to determine where canals or dykes should be constructed, set construction stakes, made entomolgical investigations, and checked on completed work. This involved the exploration of 25,601 acres of marsh land. Assistance was given municipalities, local health departments, organized camps, owners of hydro-electric lakes and other responsible agencies in the development, evaluation and supervision of mosquito control activities. Two hundred and seventy-three permits were issued to impound water. Nineteen hydro-electric developments are located in North Carolina and are required by the Federal Power Commission to control mosquitoes in a manner consistent with existing laws. Close liaison is maintained with the U. S. Corps of Engineers, the State Highway Commission, the U. S. Soil Conservation Service, and other agencies whose operations create topographical change in order to prevent the creation of conditions favorable to the propogation of mosquitoes and other disease vectors.

A survey in Forsyth County indicated that a heavy mosquito infestation of **aedes aegypti** mosquitoes existed at Kernersville, where these mosquitoes were found breeding in a stockpile of rubber tires that are converted by the manufacturer into door mats. It was previously believed that this mosquito had been eradicated from North Carolina. Subsequent survey following our recommendations did not show any **aedes aegypti** present. Our staff worked with the scientific personnel provided by the Public Health Service in making surveys and investigations in areas affected by an encephalitis outbreak. This involved catching and identifying mosquitoes, trapping and bleeding birds, interviewing veterinarians in several counties and collecting pertinent information from all sources available. Approximately 35,000 mosquitoes, representing at least 23 species, were collected on premises with recent or current infections. **Culiseta melanura**, a mosquito that normally transmits the virus from bird to bird, was found in abundance and evidence seems to incriminate it as the vector in this outbreak.

As previously mentioned considerable time was given to assisting municipalities and local health departments with problems involving the storage, collection, and disposal of solid wastes. Several years ago, data compiled by this office indicated that on the national average three pounds of solid waste per person was being discarded daily. It is now estimated that this has increased to 4½ pounds. The meager staff that we have available for this activity is totally inadequate for coping with so gigantic a problem. Our inability to follow up on work done and to spend sufficient time with local personnel, frequently results in the loss of local interest and the resumption to former insanitary disposal methods. Assistance was given a number of county health departments in making surveys of unauthorized roadside garbage dumps. Such surveys revealed over 300 unauthorized dumps in Rockingham, 381 in Cabarrus, and 142 in Yadkin Counties. During the biennium, ten counties adopted ordinances identical with a model prepared by us and 19 communities began disposal of refuse in sanitary landfills.

The State Board of Health has been designated by the Governor as the agency to administer Public Law 89-272, which deals with the disposal of solid

wastes. We have applied for and received approval of a small planning grant. Funds have not yet been received, but it is hoped that they will provide some additional personnel, enabling us to make a comprehensive study of the problem throughout North Carolina.

In 1965, a project similar to the demonstration vector control project carried on cooperatively with the U. S. Public Health Service and the City of Rocky Mount was started in Gaston County with a physician and sanitarian provided by the Public Health Service. This project differs in scope from the one in Rocky Mount as the incidence of communicable disease and the status of immunization within the county is also being established by the survey.

ENGINEERING SECTION

The primary function of the Engineering Section's personnel has been to encourage, promote and in other ways seek compliance with the intent of Chapter 130, Article 13, of the General Statutes of North Carolina, which is to secure for the public a water supply that is suitable for drinking and other domestic purposes. Visits, inspections, recommendations and assistance have been made and given by the engineers to many of the 946 public water supplies now under supervision. Consultations were had with engineers, architects, municipal officials, well contractors and others to promote built-in health measures in public water systems. Plans that were submitted for all proposed water supply developments were reviewed in detail to insure the inclusion of approved methods of purification, distribution, and storage. According to the bulletins of the Associated General Contractors $33,533,217 were contracted for water supply development during the biennium. Another $10,902,169 in contracts were awarded for combined water and sewerage improvements.

Some of the advances in public water supply development during the biennium were new water plants at Zebulon, Wendell, Stoney Point, Wagram, Goldston-Gulf, Pittsboro, Hendersonville, Kannapolis, Cullowhee, Maiden, and Huntersville. Maggie Valley and Cliffside Sanitary Districts were created. Extensions were made to Royal Oaks, Rural Hall, and Yanceyville Sanitary Districts; these actions being taken in order to enlarge or develop the water supplies. Eleven towns, Kelford, Lewiston, Roper, Shallotte, Columbia, Aulander, Maysville, Sims, Aurora, Broadway and Dublin developed new supplies using ground water. Fluoridation was begun in the water supplies at Brevard, Lillington, Selma, Wadesboro, Southern Pines, Spindale, Apex, Gastonia, Asheville, Morganton, and Statesville.

The water purification plant built at Kannapolis by Cannon Mills will eventually serve the large Kannapolis Sanitary District, which has been previously reported. This district, when completed, will serve approximately 35,000 people. The plant at Kannapolis will employ the high-rate filtration principle which was first applied to the plant at Siler City on an experimental basis. Our engineers observed the operation of the Siler City plant for a period of a year prior to giving our approval to this method, which now will be accepted on the basis of individual consideration.

A study was made of a county-wide water system to serve Anson County. This is the first study of this kind in the State and is the forerunner of what we believe will take place throughout North Carolina in coming years. Over $4,000,000 have been made available by the Federal Government to implement these plans to provide adequate safe water throughout the county.

In implementing the recommendations of the Sanitation Section of school water and sewerage facilities, plans were reviewed for proposed additions to 116 schools that had these facilities.

Other activities in water supply included study of streams to determine their suitability as sources of raw water for public supplies, sanitary surveys of all proposed well sites for public supplies, collection and tabulation of data for emergency planning, reviewing plans and inspecting swimming pools as requested, providing emergency water treatment for the town of Milton, review of proposed water and sewage treatment facilities to serve roadside parks, State parks and State institutions, and site investigations and recommendations for all proposed waste treatment facilities on streams used as a raw water source for public water supplies.

A Reference Manual for Water and Sewerage Systems was developed and made available to city officials and consulting engineers in an effort to better inform those engaged in public water supply design and construction of the public health requirements. The training of operators of water plants is one of the great needs in our State today. New plants, new processes, and the production of larger amounts of quality water from raw waters of lower quality are demanding larger numbers of better qualified operators.

During the biennium we assisted the U. S. Department of the Interior with the saline water conversion plant at Wrightsville Beach. This community is now being supplied fresh drinking water from salt water.

Increasing populations with increasing water needs are occurring at the same time that raw water sources are decreasing in quality. The answer is water reuse. This will require more complete and complex treatment plants, better trained operating personnel, and increased surveillance by all of those having responsibilities for safe guarding water quality. We cannot emphasize too strongly the need for sufficient personnel in this activity to enable the State Board of Health to discharge its legal responsibility in the field of public water supply protection.

REPORT of the COMMITTEE on POSTMORTEM MEDICOLEGAL EXAMINATIONS

The Committee on Postmortem Medicolegal Examinations is charged with the general administration of the Medical Examiner System of the State of North Carolina. This new system became available to counties of the State January 1, 1956, having been authorized by Chapter 972, Public Laws of North Carolina, 1955. This system is designed to provide modern medical and scientific help to local officials in determining the cause of unattended deaths. Individual counties of the State may join or leave the system by resolution of the Board of County Commissioners.

Counties in the system recommend a qualified physician as county medical examiner as well as additional qualified physicians who may act as assistant medical examiners. These examiners examine the circumstances of each unattended death. Pathologists perform autopsy examinations at the request of the county medical examiner. Toxicological analyses are provided by the toxicology laboratory at the University of North Carolina, established at the request of the Committee.

The Committee has the following composition: Dr. Jacob Koomen, Raleigh, Chairman; Dr. K. M. Brinkhous, Chapel Hill, Secretary; Dr. T. D. Kinney, Durham; Dr. Harry Carpenter, Winston-Salem; Mr. Holt McPherson, High Point; Mr. Walter Anderson, State Bureau of Investigation, Raleigh; and Mr. Harold L. Waters, Department of Justice, Raleigh. Dr. R. H. Wagner serves as toxicologist.

At the present time there are thirteen counties active in the system. Guilford County has been active for a number of years and Transylvania County joined the system in 1962. In 1963, Wake, Caswell, Forsyth, Davidson, and Davie Counties joined the system. Chatham, Orange, and Vance Counties joined in 1964. Lee, Person, and Rockingham Counties joined in 1965. Four other counties have been in the system at various times: Pope, Union, Wilkes, and Cumberland.

The deaths examined for the year 1964 and for the year 1965 in the Medical Examiner Counties are summarized below.

SUMMARY FOR 1964 BY COUNTIES

County	Deaths Examined	Autopsies	% Autopsies
Caswell	24	1	4.16
Chatham	11	2	18.18
Davidson*			
Davie	35	3	8.57
Forsyth	325	28	8.61
Guilford	284	51	17.95
Orange	56	22	39.28
Transylvania	22	3	13.63
Vance	5	0	0
Wake	281	62	22.06
Totals	1,143	172	15.04

*Dr. Milton Block, Medical Examiner for Davidson County, died in February, 1964, and no statistics are available for Davidson County.

SUMMARY FOR 1965 BY COUNTIES

County	Deaths Examined	Autopsies	% Autopsies
Caswell	4	1	25.00
Chatham	29	5	17.24
Davidson*			
Davie	25	1	4.00
Forsyth	456	29	6.36
Guilford	426	62	14.55
Lee	53	2	3.77
Orange	168	60	35.71
Person	30	1	3.33
Rockingham	84	6	7.14
Transylvania**			
Vance	6	0	0
Wake	284	71	25.00
Totals	1,565	238	15.27

*Dr. Milton Block, Medical Examiner for Davidson County, died in February, 1964, and no statistics are available for Davidson County.

**No data is available from Transylvania County. The medical Examiner, Dr. James L. Sanders, Jr., resigned at the end of 1964.

Toxicological analyses are an integral part of this system and are provided without charge to the counties. The Toxicology Laboratory at Chapel Hill was set up especially for this purpose, both as to equipment and personnel. Services has also been provided for a limited number of examinations in counties not a part of the Medical Examiner System.

The laboratory is now prepared to carry out the following analyses:

(1) Quantitative and Qualitative Tests: Acetaldehyde, Acetone, Amphetamine, Arsenic, Barbiturates, Bromides, Carbon monoxide, Carbon tetrachloride, Chloral hydrate, Chloroform, Cholinesterase activity, Cyanide, Doriden, Ethyl alcohol, Fluorides, Formaldehyde, Isopropyl alcohol, Lead, Librium, Manganese, Meprobamate, Mercury, Methemoglobin, Methyl alcohol, Nicotine, Paraldehyde, Phenothiazines, Pyribenzamine, Quinine, Salicylates, Sparine, Strychnine, and Trichloroethylene.

(2) Qualitative Tests Only: Alkaloids, Antimony, Bismuth, Demerol, Morphine, Phenols, and Phosphorus.

(3) Analyses needed or in the process of development are: Quantitative analyses for other heavy metals; Blood lead; Glucosides; Toxins (Bacteriological assays); Gas chromatography of volatile materials; Thin layer chromatography; Infrared spectroscopy; and Atomic absorption spectroscopy. An atomic absorption apparatus has just been obtained.

In 1964-65, 186 cases were examined with 563 analyses. In 1965-66, 240 cases were examined with 796 analyses. The attachment illustrates the growth of this service over the past eight years, tabulated on a January 1 to December 31 basis.

The chief needs of the Medical Examiner System are related to methods making it more effective and generally available throughout the State. Development of a state-wide system with a full-time chief medical examiner would

probably be the best solution once additional counties join the system. With the increasing toxicology load, it appears that increased support for the toxicology laboratory will be necessary.

Jacob Koomen, Chairman

K. M. Brinkhous, Secretary

Committee on Postmorten Medicolegal Examinations

UNIVERSITY OF NORTH CAROLINA

Laboratory of Toxicology

CUMULATIVE TOXICOLOGY REPORT

Year	No. Analyses	No. Cases
1958	46	25
1959	117	54
1960	191	66
1961	222	70
1962	246	86
1963	477	153
1964	535	171
1965	692	214

PUBLIC HEALTH CHRONOLOGY—1964-1966*

1964—On July 21 the State Board of Health signed an agreement with the Atomic Energy Commission which gave the State Board part of the regulatory authority over radioactive materials. — Dr. Edwin S. Preston, Public Relations Officer and Editor of the HEALTH BULLETIN, was elected President of the N. C. State Employees Association, the first president from the Health Department. — Mr. Ben Eaton, Jr., returned to North Carolina, again becoming Director of Administrative Services. — Dr. Martin Hines, Director of the Division of Epidemiology, served his one-year term as President of the N. C. Public Health Association. — Dr. Robert D. Higgins, Director of the Local Health Division, died Oct. 9. — On Dec. 3, the name of the "Division of Oral Hygiene" was officially changed to the "Dental Health Division".

1965—Dr. John A. Ferrell and Dr. William P. Jacocks, public health pioneers active in North Carolina and elsewhere, died in February. — "Weight Control Classes" were held for staff members of the State Board. — "Immunization Day" was observed with 150 staff members of the State Board receiving 273 immunizations. — Dr. Daniel Franklin Milam, outstanding in public health in the Nation and in this State, died April 6. — The State Board of Health was designated by Governor Dan K. Moore as the State Agency to administer the State's responsibility in Medicare. — Members of the State Board of Health sworn in August 26 were: (appointed by the Governor) Lenox D. Baker, M.D., Durham (re-appointed), A. P. Cline, Sr., D.D.S., Canton; J. M. Lackey, Hiddenite; (elected by the Medical Society of the State of North Carolina) Joseph S. Hiatt, Jr., M.D., Southern Pines; Howard Paul Steiger, M.D., Charlotte. — Ben E. Washburn, M.D., Rutherfordton, wrote "History of the North Carolina State Board of Health—1877-1925".

1966—J. W. R. Norton, M.D., M.P.H., State Health Director for nearly 18 years, resigned that position for health reasons and was named as Director of the Local Health Division. — Jacob Koomen, M.D., M.P.H., the Assistant State Health Director, was elected as State Health Director by the State Board of Health with the approval of Governor Dan K. Moore. W. Burns Jones, M.D., M.P.H., was elected Assistant State Health Director, also with the Governor's approval. — Lynn G. Maddry, Ph.D., M.S.P.H., for 35 years connected with the Laboratory, was named Director of the Laboratory Division. — John Homer Hamilton, M.D., who had retired earlier as Director of the Laboratory after long service, died on March 20. — James F. Donnelly, M.D., Director of the Personal Health Division, died June 24. Theodore D. Scurlettis, M.D., was named Acting Director of that Division. — John M. Gibson, Public Health Librarian, died July 16. — Dr. Fred T. Foard, M.D., former Director of the Division of Epidemiology who had retired June 30, died August 7 at the age of 77. — Mrs. Corrina Sutton, Assistant Director of the Laboratory Division who received her Ph.D. degree in December, was elected president of the N. C. Public Health Association at the Annual Meeting held at Winston-Salem. This meeting was dedicated to Dr. J. W. R. Norton in appreciation of his long and fruitful service to public health and his continuing service as Director of the Local Health Division.

*A Chronological Report year by year from 1877 to 1952 is contained in the 34th Biennial Report covering the period, July 1, 1950-June 30, 1952, a similar report for the years 1952-1955 inclusive is contained in the 38th Biennial Report, a report for the years 1956-1961 in the 39th Biennial Report, and for the years 1962-1964 in the 40th Biennial Report.

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Biennial report,
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